(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
9 September 2005 (09.09.2005)

PCT

(10) International Publication Number
WO 2005/082340 A2

(51) International Patent Classification[7]: A61K 31/00

(21) International Application Number:
PCT/US2005/005316

(22) International Filing Date: 18 February 2005 (18.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/546,395	20 February 2004 (20.02.2004)	US
60/547,103	23 February 2004 (23.02.2004)	US
60/554,771	19 March 2004 (19.03.2004)	US

(71) Applicant *(for all designated States except US)*: **CHIRON CORPORATION** [US/US]; 4560 Horton Street, Emeryville, California 94608-2917 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **LEE, Sang, H.** [US/US]; 4560 Horton Street, Emeryville, CA 94608-2917 (US). **HEISE, Carla, C.** [US/US]; 4560 Horton Street, Emeryville, California 94608-2917 (US).

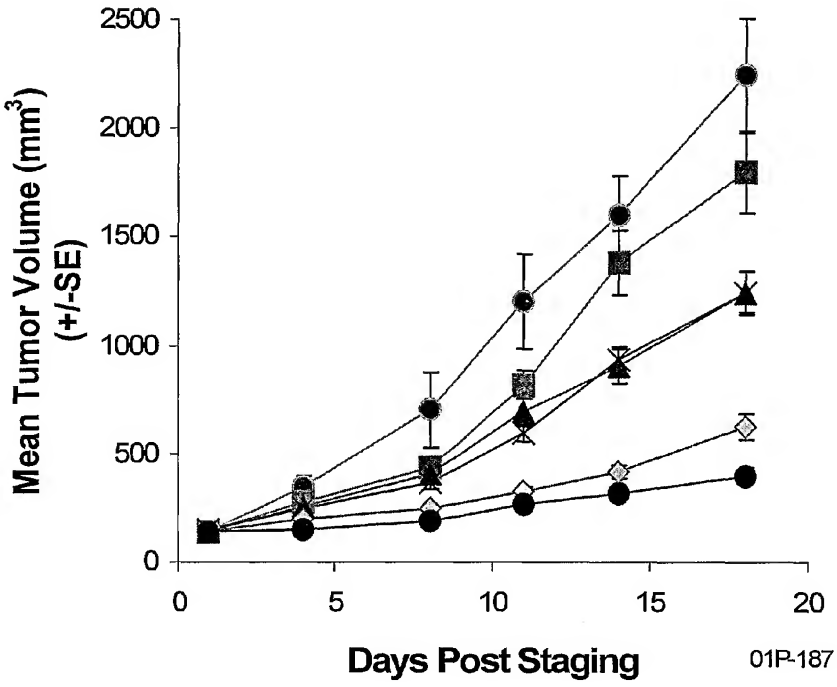
(74) Agent: **FRIEDRICHSEN, Bernard, P.**; 150 E. Gilman Street, P.O. Box 1497, Madison, Wisconsin 53701-1497 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

[Continued on next page]

(54) Title: MODULATION OF INFLAMMATORY AND METASTATIC PROCESSES



(57) Abstract: Methods of using compounds having Structure (I) or the salts or tautomers of the compounds in the treatment of disorders relating to cell adhesion and metastatic processes are presented herein.

WO 2005/082340 A2

SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

MODULATION OF INFLAMMATORY AND METASTATIC PROCESSES

FIELD OF THE INVENTION

[0001] The present invention provides methods for using compounds to modulate inflammatory responses and processes related to tumor metastasis. The invention further provides methods for monitoring the effects of the compounds of the invention by measuring the levels of ICAM, VCAM, or E-selectin molecules in a subject treated with the compounds.

BACKGROUND OF THE INVENTION

[0002] Amino quinolinone benzimidazolyl compounds such as 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one and their tautomers and salts are potent inhibitors of various class kinases such as VEGFR2 (KDR, Flk-1), FGFR1 and PDGFRβ with IC_{50}s ranging from 10-27 nM. See U.S. Patent No. 6,605,617, U.S. Patent Application No. 10/644,055, and U.S. Patent Application No. 10/706,328, each of which is hereby incorporated by reference in its entirety and for all purposes as if fully set forth herein, for a list of various tyrosine and serine/threonine kinases for which 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one has shown activity and for assay procedures. Such kinases are important for the initiation and maintenance of new blood vessel growth as well as tumor proliferation. Consequently these inhibitors have direct applications in the treatment of various disorders such as solid and hematological cancers. The identification of plasma biomarkers in subjects treated with these kinase inhibitors would therefore provide a convenient method for monitoring the subject's physiological response to the treatment.

[0003] Cell adhesion molecules play important roles in tumor cell invasion, metastasis, and interaction with immune cells. VCAM (vascular cell adhesion molecule) is a transmembrane glycoprotein and expressed in endothelial cells and various cancer types such as bladder, breast, gastrointestinal, ovarian, renal, and Hodgkin's and non-Hodgkin's lymphoma. VCAM is induced by VEGF and is

predominantly expressed in activated endothelial cells. ICAM (inducible cell adhesion molecule) is also expressed in endothelial cells and various cells including fibroblasts, hematopoietic cells, and tumor cells. The soluble form of ICAM present in the plasma is generated by proteolytic cleavage of membrane-associated molecules. E-Selectin (endothelial leukocyte adhesion molecule) is a transmembrane glycoprotein expressed in endothelial cells and mediates adhesion of neutrophils, monocytes, and T cells to endothelial cells. E-selectin also mediates tumor progression and metastasis.

[0004] A high concentration of soluble ICAM, VCAM, and E-selectin is considered a marker of endothelial cell activation during tumor development, metastasis, and inflammatory responses. These cell adhesion molecules localized on endothelial cells can mediate adhesion of metastatic tumor cells and allow extravasation into the vessels. It is of interest that these molecules are inducible, being poorly expressed on normal endothelial cells but capable of being expressed highly after exposure to cytokines such as IL-1 or TNF-a. In addition, some of these molecules are preferentially expressed in different vascular beds, with VCAM being abundant in the lung and E-selectin in the liver.

[0005] Matrix metalloproteases (MMPs) are a class of proteases that degrade most components of the extracellular matrix (ECM). Under normal physiological conditions they play an important role in development, tissue remodeling and morphogenesis. However, elevated levels of certain metalloproteases have been implicated in pathological diseases such as cancer and inflammation. Degradation of the extracellular matrix in the basement membrane is essential for tissue invasion by tumor cells and metastasis at various sites, and this degradation is dependent on the activity of MMPs. The family of MMPs includes more than 20 members. Two of these proteases are MMP-2 (gelatinase A, 72 KD) and MMP-9 (gelatinase B, 92 KD). MMP-2 and MMP-9 are important regulators of cancer progression and metastasis and their levels are frequently elevated in various cancer patients.

[0006] A report by Bergers *et al.* (Matrix metalloproteinase-9 triggers the angiogenic switch during carcinogenesis; Berger, G. et al., Nature Cell Biology,

2:737-744; 2000) discloses that MMP-9/gelatinase B is a functional component of an angiogenic switch during multistage pancreatic carcinogenesis by increasing the release of VEGF.

[0007] Various quinolinone benzimidazole compounds useful in inhibiting angiogenesis and vascular endothelial growth factor receptor tyrosine kinases and in inhibiting other tyrosine and serine/threonine kinases including 4-amino-5-fluoro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one or a tautomer thereof and the synthesis thereof are disclosed in the following documents which are each hereby incorporated by reference in their entireties and for all purposes as if fully set forth herein: U.S. Patent No. 6,605,617; U.S. Patent No. 6,756,383; U.S. Patent Application No. 10/116,117 filed (published on February 6, 2003, as US 2003/0028018 A1); U.S. Patent Application No. 10/644,055 (published on May 13, 2004, U.S. Patent Application No. 2004/0092535); U.S. Patent Application No. 10/983,174; U.S. Patent Application No. 10/706,328 (published on November 4, 2004, as 2004/0220196); U.S. Patent Application No. 10/982,757; and U.S. Patent Application No. 10/982,543.

[0008] An important need exists for methods for modulating levels of cellular adhesion molecules and matrix metalloproteases. Such methods would therefore constitute important and needed therapies in the treatment of inflammatory and metastatic diseases mediated by cellular adhesion molecules and matrix metalloproteases.

SUMMARY OF THE INVENTION

[0009] The present invention relates to methods of treating a human or animal subject with, and uses in a human or animal subject of, a compound of Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof. The invention also relates to the use of the compound, tautomer, salt of the compound, salt of the tautomer, or the mixture thereof in the preparation of a medicament for use in the methods described herein.

[0010] In one aspect, the invention provides a method of modulating an inflammatory response or reducing cellular adhesion in a subject. Such methods include administering to the subject a compound of Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof. The inflammatory response is modulated in the subject and/or cellular adhesion is reduced in the subject after administration of the compound, the tautomer, the pharmaceutically acceptable salt of the compound, the pharmaceutically acceptable salt of the tautomer, or the mixture thereof.

[0011] In one aspect, the compound, tautomer, salt of the compound, salt of the tautomer, or the mixture thereof are used to modulate an inflammatory response.

[0012] In another aspect, the compound, tautomer, salt of the compound, salt of the tautomer, or the mixture thereof are used to reduce cellular adhesion.

[0013] In another aspect, the compound, tautomer, salt of the compound, salt of the tautomer, or the mixture thereof are used to decrease ICAM, VCAM, or E-selectin levels.

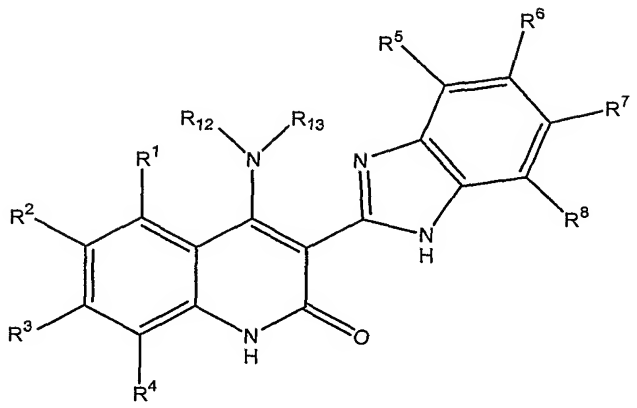
[0014] In another aspect, the compound, tautomer, salt of the compound, salt of the tautomer, or the mixture thereof used to reduce the levels of circulating cell adhesion molecules.

[0015] In another aspect, the compound, tautomer, salt of the compound, salt of the tautomer, or the mixture thereof are used to decrease circulating ICAM, VCAM, or E-selectin levels.

[0016] In another aspect, the invention provides a method of monitoring the progression of a disease or treatment in a human or animal subject. The method includes measuring the amount of at least one cell adhesion molecule in the subject after administration of a compound of Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof to the subject. In some embodiments, the cell adhesion molecule is selected from inducible cell adhesion molecule (ICAM), vascular cell adhesion molecule (VCAM), or endothelial leukocyte adhesion molecule (E-Selectin). Some such methods further include withdrawing a sample of blood from the subject and then measuring the amount of the at least one cell adhesion molecule in at least a portion of the sample. Other embodiments include administering the compound, the tautomer, the pharmaceutically acceptable salt of the compound, the pharmaceutically acceptable salt of the tautomer, or the mixture thereof to the subject.

[0017] In another aspect, the invention provides a method of identifying a subject in need of a compound of Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof. The method includes measuring the amount of at least one cell adhesion molecule in the subject before, during, or after administration of the compound of Structure I, the tautomer of the compound, the pharmaceutically acceptable salt of the compound, the pharmaceutically acceptable salt of the tautomer, or the mixture thereof to the subject. In some embodiments, the cell adhesion molecule is selected from inducible cell adhesion molecule, vascular cell adhesion molecule, or endothelial leukocyte adhesion molecule. In some embodiments, the method further includes administering the compound of Structure I, the tautomer of the compound, the pharmaceutically acceptable salt of the compound, the pharmaceutically acceptable salt of the tautomer, or the mixture thereof to the subject after measuring the amount of the cell adhesion molecule in the subject.

[0018] Structure I has the following formula:



I

wherein,

R^1, R^2, R^3, and R^4 may be the same or different and are independently selected from the group consisting of H, Cl, Br, F, I, -CN, -NO_2, -OH, -OR^{15} groups, -$NR^{16}R^{17}$ groups, substituted and unsubstituted amidinyl groups, substituted and unsubstituted guanidinyl groups, substituted and unsubstituted primary, secondary, and tertiary alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted alkenyl groups, substituted and unsubstituted alkynyl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylalkyl groups, and -$C(=O)R^{18}$ groups;

R^5, R^6, R^7, and R^8 may be the same or different and are independently selected from the group consisting of H, Cl, Br, F, I, -NO_2, -OH, -OR^{19} groups, -$NR^{20}R^{21}$ groups, -SH, -SR^{22} groups, -$S(=O)R^{23}$ groups, -$S(=O)_2R^{24}$ groups, -CN, substituted and unsubstituted amidinyl groups, substituted and unsubstituted guanidinyl groups, substituted and unsubstituted primary, secondary, and tertiary alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted alkenyl groups, substituted and unsubstituted alkynyl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted

arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylalkyl groups, -C(=O)R^{25} groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{12} is selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups;

R^{13} is selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, -OH, alkoxy groups, aryloxy groups, -NH_2, substituted and unsubstituted heterocyclylalkyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted alkylamino groups, substituted and unsubstituted arylamino groups, substituted and unsubstituted dialkylamino groups, substituted and unsubstituted diarylamino groups, substituted and unsubstituted (alkyl)(aryl)amino groups, -C(=O)H, -C(=O)-alkyl groups, -C(=O)-aryl groups, -C(=O)O-alkyl groups, -C(=O)O-aryl groups, -C(=O)NH_2, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, -C(=O)N(alkyl)$_2$ groups, -C(=O)N(aryl)$_2$ groups, -C(=O)N(alkyl)(aryl) groups, -C(=O)-heterocyclyl groups, -C(=O)-O-heterocyclyl groups, -C(=O)NH(heterocyclyl) groups, -C(=O)-N(heterocyclyl)$_2$ groups, –C(=O)-N(alkyl)(heterocyclyl) groups, -C(=O)-N(aryl)(heterocyclyl) groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{15} and R^{19} may be the same or different and are independently selected from the group consisting of substituted and unsubstituted alkyl groups, substituted and

unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted heterocyclylalkyl groups, -C(=O)H, -C(=O)-alkyl groups, -C(=O)-aryl groups, $-C(=O)NH_2$, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, $-C(=O)N(alkyl)_2$ groups, $-C(=O)N(aryl)_2$ groups, –C(=O)N(alkyl)(aryl) groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylaminoalkyl, substituted and unsubstituted diheterocyclylaminoalkyl, substituted and unsubstituted (heterocyclyl)(alkyl)aminoalkyl, substituted and unsubstituted (heterocyclyl)(aryl)aminoalkyl, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{16} and R^{20} may be the same or different and are independently selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups;

R^{17} and R^{21} may be the same or different and are independently selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, -C(=O)H, -C(=O)-alkyl groups, –C(=O)-aryl groups,$-C(=O)NH_2$, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, $-C(=O)N(alkyl)_2$ groups, $-C(=O)N(aryl)_2$ groups, -C(=O)N(alkyl)(aryl) groups, -C(=O)O-alkyl groups, -C(=O)O-aryl groups, substituted and unsubstituted heterocyclylalkyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, -C(=O)-heterocyclyl groups, -C(=O)-O-heterocyclyl groups, -C(=O)NH(heterocyclyl) groups, $-C(=O)-N(heterocyclyl)_2$ groups, -C(=O)-N(alkyl)(heterocyclyl) groups, -C(=O)-N(aryl)(heterocyclyl) groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups,

substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{18}, R^{23}, R^{24}, and R^{25} may be the same or different and are independently selected from the group consisting of H, $-NH_2$, -NH(alkyl) groups, -NH(aryl) groups, $-N(alkyl)_2$ groups, $-N(aryl)_2$ groups, -N(alkyl)(aryl) groups, -NH(heterocyclyl) groups, -N(heterocyclyl)(alkyl) groups, -N(heterocyclyl)(aryl) groups, $-N(heterocyclyl)_2$ groups, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, -OH, substituted and unsubstituted alkoxy groups, substituted and unsubstituted aryloxy groups, substituted and unsubstituted heterocyclyl groups, -NHOH, -N(alkyl)OH groups, -N(aryl)OH groups, -N(alkyl)O-alkyl groups, -N(aryl)O-alkyl groups, -N(alkyl)O-aryl groups, and -N(aryl)O-aryl groups; and

R^{22} is selected from the group consisting of substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups.

[0019] Further objects, features and advantages of the invention will be apparent from the following detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] Figure 1 is a graph showing the effects of various amount of 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one (Compound 1) on a 4T1 murine breast tumor model (vehicle (grey outlined circle); 10 mpk (square); 30 mpk (grey triangle); 60 mpk (X); 100 mpk (diamond); and 150 mpk (filed circle)). The growth of the subcutaneous tumor was inhibited (40-80% compared to control), liver metastases were completely inhibited, and lung metastases were inhibited by 60-97% after 18 days of dosing.

[0021] Figures 2A and 2B are graphs showing the dose-dependent reduction of soluble ICAM (Figure 2A; greater than 70% inhibition with 100 or 150 mg/kg) and soluble VCAM (Figure 2B; 44-47% inhibition with 100 or 150 mg/kg) in the serum of

mice with 4T1 breast tumors when dosed with varying amounts of 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one.

[0022] Figure 3 is a graph showing the dose-dependent inhibition of mouse-specific soluble E-selectin in the serum of 4T1 tumor bearing mice treated with 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one.

[0023] Figures 4A, 4B, and 4C are graphs of the Zymography and VEGF ELISA (Figure 4B) data that show the decrease in MMP9 and VEGF in mice with implanted KM12L4a tumor cells when dosed for 7 days with 100 mg/kg 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one.

[0024] Figure 5 is a scanned image showing the decrease in the expression of ICAM, and VCAM when HUVECs in culture were treated with 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H).

[0025] Figure 6 is a scanned image showing the decrease in the expression of $\alpha 5$ integrin, not αv integrin when HUVECs in culture were treated with 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H).

DETAILED DESCRIPTION OF THE INVENTION

[0026] The following abbreviations and definitions are used throughout this application:

[0027] The phrase "cellular adhesion" as used herein, refers to cell adhesion. The amount of cellular adhesion in a subject can typically be correlated with the amounts of cell adhesion molecules, such as, but not limited to VCAM, ICAM, and E-Selectin in a subject.

[0028] "VCAM" is an abbreviation that stands for vascular cell adhesion molecule.

[0029] "ICAM" is an abbreviation that stands for inducible cell adhesion molecule.

[0030] "E-Selectin" is also known as endothelial leukocyte adhesion molecule.

[0031] "4T1" is a murine breast cell line.

[0032] "BALB/C" is a mice strain used in tumor xenograph experiments.

[0033] "bFGF" is an abbreviation that stands for basic fibroblast growth factor.

[0034] "FGFR1", also referred to as bFGFR, is an abbreviation that stands for a tyrosine kinase that interacts with the fibroblast growth factor FGF.

[0035] "FGF" is an abbreviation for the fibroblast growth factor that interacts with FGFR1.

[0036] "FGFR3" is an abbreviation that stands for the tyrosine kinase fibroblast growth factor receptor 3 that is often expressed in multiple myeloma-type cancers.

[0037] "Flk-1" is an abbreviation that stands for fetal liver tyrosine kinase 1, also known as kinase-insert domain tyrosine kinase or KDR (human), also known as vascular endothelial growth factor receptor-2 or VEGFR2 (KDR (human), Flk-1 (mouse)).

[0038] "PDGF" is an abbreviation that stands for platelet derived growth factor. PDGF interacts with tyrosine kinases PDGFRα and PDGFRβ.

[0039] "RTK" is an abbreviation that stands for receptor tyrosine kinase.

[0040] "VEGF" is an abbreviation that stands for vascular endothelial growth factor.

[0041] "VEGF-RTK" is an abbreviation that stands for vascular endothelial growth factor receptor tyrosine kinase.

[0042] "ELISA" is an abbreviation that stands for Enzyme-Linked Immunosorbent Assay.

[0043] "MMP-2" is an abbreviation that stands for matrix metalloprotease-2 [includes the 72 KD (pro MMP-2) protein and the 62 KD (active MMP-2) protein]. MMP-2 is also referred to as gelatinase A.

[0044] "MMP-9" is an abbreviation that stands for matrix metalloprotease-9 [includes the 105 KD (pro MMP-9) protein and the 92KD (active MMP-9) protein]. MMP-9 is also referred to as gelatinase B.

[0045] "Ki67" is a marker for cellular proliferation.

[0046] "Caspase-3" is a apoptosis marker. Activation of caspase-3 requires proteolytic processing of inactive caspase-3 into "cleaved caspase-3" which is 17 KD and 19 KD in size.

[0047] "PARP" is an abbreviation that stands for poly ADP-ribose polymerase and is an apoptosis marker. It is a 116 KD protein and is cleaved into a 89KD protein.

[0048] "CD31" is a marker for endothelial cells. Immunostaining with anti-CD31 antibody in tumor section by immunohistochemistry will indicate the number of microvessels (or microvessel density) in tumors.

[0049] Generally, reference to a certain element such as hydrogen or H is meant to include all isotopes of that element. For example, if an R group is defined to include hydrogen or H, it also includes deuterium and tritium.

[0050] The phrase "unsubstituted alkyl" refers to alkyl groups that do not contain heteroatoms. Thus the phrase includes straight chain alkyl groups such as methyl, ethyl, propyl, butyl, pentyl, hexyl, heptyl, octyl, nonyl, decyl, undecyl, dodecyl and the like. The phrase also includes branched chain isomers of straight chain alkyl groups, including but not limited to, the following which are provided by way of example: $-CH(CH_3)_2$, $-CH(CH_3)(CH_2CH_3)$, $-CH(CH_2CH_3)_2$, $-C(CH_3)_3$, $-C(CH_2CH_3)_3$, $-CH_2CH(CH_3)_2$, $-CH_2CH(CH_3)(CH_2CH_3)$, $-CH_2CH(CH_2CH_3)_2$,

$-CH_2C(CH_3)_3$, $-CH_2C(CH_2CH_3)_3$, $-CH(CH_3)CH(CH_3)(CH_2CH_3)$, $-CH_2CH_2CH(CH_3)_2$, $-CH_2CH_2CH(CH_3)(CH_2CH_3)$, $-CH_2CH_2CH(CH_2CH_3)_2$, $-CH_2CH_2C(CH_3)_3$, $-CH_2CH_2C(CH_2CH_3)_3$, $-CH(CH_3)CH_2CH(CH_3)_2$, $-CH(CH_3)CH(CH_3)CH(CH_3)_2$, $-CH(CH_2CH_3)CH(CH_3)CH(CH_3)(CH_2CH_3)$, and others. The phrase also includes cyclic alkyl groups such as cycloalkyl groups such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, and cyclooctyl and such rings substituted with straight and branched chain alkyl groups as defined above. The phrase also includes polycyclic alkyl groups such as, but not limited to, adamantyl norbornyl, and bicyclo[2.2.2]octyl and such rings substituted with straight and branched chain alkyl groups as defined above. Thus, the phrase unsubstituted alkyl groups includes primary alkyl groups, secondary alkyl groups, and tertiary alkyl groups. Unsubstituted alkyl groups may be bonded to one or more carbon atom(s), oxygen atom(s), nitrogen atom(s), and/or sulfur atom(s) in the parent compound. Preferred unsubstituted alkyl groups include straight and branched chain alkyl groups and cyclic alkyl groups having 1 to 20 carbon atoms. More preferred such unsubstituted alkyl groups have from 1 to 10 carbon atoms while even more preferred such groups have from 1 to 5 carbon atoms. Most preferred unsubstituted alkyl groups include straight and branched chain alkyl groups having from 1 to 3 carbon atoms and include methyl, ethyl, propyl, and $-CH(CH_3)_2$.

[0051] The phrase "substituted alkyl" refers to an unsubstituted alkyl group as defined above in which one or more bonds to a carbon(s) or hydrogen(s) are replaced by a bond to non-hydrogen and non-carbon atoms such as, but not limited to, a halogen atom in halides such as F, Cl, Br, and I; an oxygen atom in groups such as hydroxyl groups, alkoxy groups, aryloxy groups, and ester groups; a sulfur atom in groups such as thiol groups, alkyl and aryl sulfide groups, sulfone groups, sulfonyl groups, and sulfoxide groups; a nitrogen atom in groups such as amines, amides, alkylamines, dialkylamines, arylamines, alkylarylamines, diarylamines, N-oxides, imides, and enamines; a silicon atom in groups such as in trialkylsilyl groups, dialkylarylsilyl groups, alkyldiarylsilyl groups, and triarylsilyl groups; and other heteroatoms in various other groups. Substituted alkyl groups also include groups in which one or more bonds to a carbon(s) or hydrogen(s) atom is replaced by a bond to

a heteroatom such as oxygen in carbonyl, carboxyl, and ester groups; nitrogen in groups such as imines, oximes, hydrazones, and nitriles. Preferred substituted alkyl groups include, among others, alkyl groups in which one or more bonds to a carbon or hydrogen atom is/are replaced by one or more bonds to fluorine atoms. One example of a substituted alkyl group is the trifluoromethyl group and other alkyl groups that contain the trifluoromethyl group. Other alkyl groups include those in which one or more bonds to a carbon or hydrogen atom is replaced by a bond to an oxygen atom such that the substituted alkyl group contains a hydroxyl, alkoxy, aryloxy group, or heterocyclyloxy group. Still other alkyl groups include alkyl groups that have an amine, alkylamine, dialkylamine, arylamine, (alkyl)(aryl)amine, diarylamine, heterocyclylamine, (alkyl)(heterocyclyl)amine, (aryl)(heterocyclyl)amine, or diheterocyclylamine group.

[0052] The phrase "unsubstituted aryl" refers to aryl groups that do not contain heteroatoms. Thus the phrase includes, but is not limited to, groups such as phenyl, biphenyl, anthracenyl, naphthenyl by way of example. Although the phrase "unsubstituted aryl" includes groups containing condensed rings such as naphthalene, it does not include aryl groups that have other groups such as alkyl or halo groups bonded to one of the ring members, as aryl groups such as tolyl are considered herein to be substituted aryl groups as described below. A preferred unsubstituted aryl group is phenyl. Unsubstituted aryl groups may be bonded to one or more carbon atom(s), oxygen atom(s), nitrogen atom(s), and/or sulfur atom(s) in the parent compound, however.

[0053] The phrase "substituted aryl group" has the same meaning with respect to unsubstituted aryl groups that substituted alkyl groups had with respect to unsubstituted alkyl groups. However, a substituted aryl group also includes aryl groups in which one of the aromatic carbons is bonded to one of the non-carbon or non-hydrogen atoms described above and also includes aryl groups in which one or more aromatic carbons of the aryl group is bonded to a substituted and/or unsubstituted alkyl, alkenyl, or alkynyl group as defined herein. This includes bonding arrangements in which two carbon atoms of an aryl group are bonded to two atoms of an alkyl, alkenyl, or alkynyl group to define a fused ring system (e.g.

dihydronaphthyl or tetrahydronaphthyl). Thus, the phrase "substituted aryl" includes, but is not limited to tolyl, and hydroxyphenyl among others.

[0054] The phrase "unsubstituted alkenyl" refers to straight and branched chain and cyclic groups such as those described with respect to unsubstituted alkyl groups as defined above, except that at least one double bond exists between two carbon atoms. Examples include, but are not limited to vinyl, $-CH=C(H)(CH_3)$, $-CH=C(CH_3)_2$, $-C(CH_3)=C(H)_2$, $-C(CH_3)=C(H)(CH_3)$, $-C(CH_2CH_3)=CH_2$, cyclohexenyl, cyclopentenyl, cyclohexadienyl, butadienyl, pentadienyl, and hexadienyl among others.

[0055] The phrase "substituted alkenyl" has the same meaning with respect to unsubstituted alkenyl groups that substituted alkyl groups had with respect to unsubstituted alkyl groups. A substituted alkenyl group includes alkenyl groups in which a non-carbon or non-hydrogen atom is bonded to a carbon double bonded to another carbon and those in which one of the non-carbon or non-hydrogen atoms is bonded to a carbon not involved in a double bond to another carbon.

[0056] The phrase "unsubstituted alkynyl" refers to straight and branched chain groups such as those described with respect to unsubstituted alkyl groups as defined above, except that at least one triple bond exists between two carbon atoms. Examples include, but are not limited to $-C\equiv C(H)$, $-C\equiv C(CH_3)$, $-C\equiv C(CH_2CH_3)$, $-C(H_2)C\equiv C(H)$, $-C(H)_2C\equiv C(CH_3)$, and $-C(H)_2C\equiv C(CH_2CH_3)$ among others.

[0057] The phrase "substituted alkynyl" has the same meaning with respect to unsubstituted alkynyl groups that substituted alkyl groups had with respect to unsubstituted alkyl groups. A substituted alkynyl group includes alkynyl groups in which a non-carbon or non-hydrogen atom is bonded to a carbon triple bonded to another carbon and those in which a non-carbon or non-hydrogen atom is bonded to a carbon not involved in a triple bond to another carbon.

[0058] The phrase "unsubstituted aralkyl" refers to unsubstituted alkyl groups as defined above in which a hydrogen or carbon bond of the unsubstituted alkyl group is replaced with a bond to an aryl group as defined above. For example, methyl (-

CH_3) is an unsubstituted alkyl group. If a hydrogen atom of the methyl group is replaced by a bond to a phenyl group, such as if the carbon of the methyl were bonded to a carbon of benzene, then the compound is an unsubstituted aralkyl group (*i.e.*, a benzyl group). Thus the phrase includes, but is not limited to, groups such as benzyl, diphenylmethyl, and 1-phenylethyl (-$CH(C_6H_5)(CH_3)$) among others.

[0059] The phrase "substituted aralkyl" has the same meaning with respect to unsubstituted aralkyl groups that substituted aryl groups had with respect to unsubstituted aryl groups. However, a substituted aralkyl group also includes groups in which a carbon or hydrogen bond of the alkyl part of the group is replaced by a bond to a non-carbon or a non-hydrogen atom. Examples of substituted aralkyl groups include, but are not limited to, -$CH_2C(=O)(C_6H_5)$, and -CH_2(2-methylphenyl) among others.

[0060] The phrase "unsubstituted heterocyclyl" refers to both aromatic and nonaromatic ring compounds including monocyclic, bicyclic, and polycyclic ring compounds such as, but not limited to, quinuclidyl, containing 3 or more ring members of which one or more is a heteroatom such as, but not limited to, N, O, and S. Although the phrase "unsubstituted heterocyclyl" includes condensed heterocyclic rings such as benzimidazolyl, it does not include heterocyclyl groups that have other groups such as alkyl or halo groups bonded to one of the ring members as compounds such as 2-methylbenzimidazolyl are substituted heterocyclyl groups. Examples of heterocyclyl groups include, but are not limited to: unsaturated 3 to 8 membered rings containing 1 to 4 nitrogen atoms such as, but not limited to pyrrolyl, pyrrolinyl, imidazolyl, pyrazolyl, pyridinyl, dihydropyridinyl, pyrimidyl, pyrazinyl, pyridazinyl, triazolyl (e.g. 4H-1,2,4-triazolyl, 1H-1,2,3-triazolyl, 2H-1,2,3-triazolyl etc.), tetrazolyl, (e.g. 1H-tetrazolyl, 2H tetrazolyl, etc.); saturated 3 to 8 membered rings containing 1 to 4 nitrogen atoms such as, but not limited to, pyrrolidinyl, imidazolidinyl, piperidinyl, piperazinyl; condensed unsaturated heterocyclic groups containing 1 to 4 nitrogen atoms such as, but not limited to, indolyl, isoindolyl, indolinyl, indolizinyl, benzimidazolyl, quinolyl, isoquinolyl, indazolyl, benzotriazolyl; unsaturated 3 to 8 membered rings containing 1 to 2 oxygen atoms and 1 to 3 nitrogen atoms such as, but not limited to, oxazolyl, isoxazolyl, oxadiazolyl

(e.g. 1,2,4-oxadiazolyl, 1,3,4-oxadiazolyl, 1,2,5-oxadiazolyl, etc.); saturated 3 to 8 membered rings containing 1 to 2 oxygen atoms and 1 to 3 nitrogen atoms such as, but not limited to, morpholinyl; unsaturated condensed heterocyclic groups containing 1 to 2 oxygen atoms and 1 to 3 nitrogen atoms, for example, benzoxazolyl, benzoxadiazolyl, benzoxazinyl (e.g. 2H-1,4-benzoxazinyl etc.); unsaturated 3 to 8 membered rings containing 1 to 3 sulfur atoms and 1 to 3 nitrogen atoms such as, but not limited to, thiazolyl, isothiazolyl, thiadiazolyl (e.g. 1,2,3-thiadiazolyl, 1,2,4-thiadiazolyl, 1,3,4-thiadiazolyl, 1,2,5-thiadiazolyl, etc.); saturated 3 to 8 membered rings containing 1 to 2 sulfur atoms and 1 to 3 nitrogen atoms such as, but not limited to, thiazolodinyl; saturated and unsaturated 3 to 8 membered rings containing 1 to 2 sulfur atoms such as, but not limited to, thienyl, dihydrodithiinyl, dihydrodithionyl, tetrahydrothiophene, tetrahydrothiopyran; unsaturated condensed heterocyclic rings containing 1 to 2 sulfur atoms and 1 to 3 nitrogen atoms such as, but not limited to, benzothiazolyl, benzothiadiazolyl, benzothiazinyl (e.g. 2H-1,4-benzothiazinyl, etc.), dihydrobenzothiazinyl (e.g., 2H-3,4-dihydrobenzothiazinyl, etc.), unsaturated 3 to 8 membered rings containing oxygen atoms such as, but not limited to furyl; unsaturated condensed heterocyclic rings containing 1 to 2 oxygen atoms such as benzodioxolyl (e.g., 1,3-benzodioxoyl, etc.); unsaturated 3 to 8 membered rings containing an oxygen atom and 1 to 2 sulfur atoms such as, but not limited to, dihydrooxathiinyl; saturated 3 to 8 membered rings containing 1 to 2 oxygen atoms and 1 to 2 sulfur atoms such as 1,4-oxathiane; unsaturated condensed rings containing 1 to 2 sulfur atoms such as benzothienyl, benzodithiinyl; and unsaturated condensed heterocyclic rings containing an oxygen atom and 1 to 2 oxygen atoms such as benzoxathiinyl. Heterocyclyl group also include those described above in which one or more S atoms in the ring is double-bonded to one or two oxygen atoms (sulfoxides and sulfones). For example, heterocyclyl groups include tetrahydrothiophene oxide and tetrahydrothiophene 1,1-dioxide. Preferred heterocyclyl groups contain 5 or 6 ring members. More preferred heterocyclyl groups include morpholine, piperazine, piperidine, pyrrolidine, imidazole, pyrazole, 1,2,3-triazole, 1,2,4-triazole, tetrazole, thiophene, thiomorpholine, thiomorpholine in which the S atom of the thiomorpholine is bonded to one or more O atoms, pyrrole, homopiperazine, oxazolidin-2-one,

pyrrolidin-2-one, oxazole, quinuclidine, thiazole, isoxazole, furan, and tetrahydrofuran.

[0061] The phrase "substituted heterocyclyl" refers to an unsubstituted heterocyclyl group as defined above in which one or more of the ring members is bonded to a non-hydrogen atom such as described above with respect to substituted alkyl groups and substituted aryl groups. Examples, include, but are not limited to, 2-methylbenzimidazolyl, 5-methylbenzimidazolyl, 5-chlorobenzthiazolyl, N-alkyl piperazinyl groups such as 1-methyl piperazinyl, piperazine-N-oxide, N-alkyl piperazine N-oxides, 2-phenoxy-thiophene, and 2-chloropyridinyl among others. In addition, substituted heterocyclyl groups also include heterocyclyl groups in which the bond to the non-hydrogen atom is a bond to a carbon atom that is part of a substituted and unsubstituted aryl, substituted and unsubstituted aralkyl, or unsubstituted heterocyclyl group. Examples include but are not limited to 1-benzylpiperidinyl, 3-phenythiomorpholinyl, 3-(pyrrolidin-1-yl)-pyrrolidinyl, and 4-(piperidin-1-yl)-piperidinyl. Groups such as N-alkyl substituted piperazine groups such as N-methyl piperazine, substituted morpholine groups, and piperazine N-oxide groups such as piperazine N-oxide and N-alkyl piperazine N-oxides are examples of some substituted heterocyclyl groups. Groups such as substituted piperazine groups such as N-alkyl substituted piperazine groups such as N-methyl piperazine and the like, substituted morpholine groups, piperazine N-oxide groups, and N-alkyl piperazine N-oxide groups are examples of some substituted heterocyclyl groups that are especially suited as R^6 or R^7 groups.

[0062] The phrase "unsubstituted heterocyclylalkyl" refers to unsubstituted alkyl groups as defined above in which a hydrogen or carbon bond of the unsubstituted alkyl group is replaced with a bond to a heterocyclyl group as defined above. For example, methyl ($-CH_3$) is an unsubstituted alkyl group. If a hydrogen atom of the methyl group is replaced by a bond to a heterocyclyl group, such as if the carbon of the methyl were bonded to carbon 2 of pyridine (one of the carbons bonded to the N of the pyridine) or carbons 3 or 4 of the pyridine, then the compound is an unsubstituted heterocyclylalkyl group.

[0063] The phrase "substituted heterocyclylalkyl" has the same meaning with respect to unsubstituted heterocyclylalkyl groups that substituted aralkyl groups had with respect to unsubstituted aralkyl groups. However, a substituted heterocyclylalkyl group also includes groups in which a non-hydrogen atom is bonded to a heteroatom in the heterocyclyl group of the heterocyclylalkyl group such as, but not limited to, a nitrogen atom in the piperidine ring of a piperidinylalkyl group. In addition, a substituted heterocyclylalkyl group also includes groups in which a carbon bond or a hydrogen bond of the alkyl part of the group is replaced by a bond to a substituted and unsubstituted aryl or substituted and unsubstituted aralkyl group. Examples include but are not limited to phenyl-(piperidin-1-yl)-methyl and phenyl-(morpholin-4-yl)-methyl.

[0064] The phrase "unsubstituted alkylaminoalkyl" refers to an unsubstituted alkyl group as defined above in which a carbon or hydrogen bond is replaced by a bond to a nitrogen atom that is bonded to a hydrogen atom and an unsubstituted alkyl group as defined above. For example, methyl ($-CH_3$) is an unsubstituted alkyl group. If a hydrogen atom of the methyl group is replaced by a bond to a nitrogen atom that is bonded to a hydrogen atom and an ethyl group, then the resulting compound is $-CH_2-N(H)(CH_2CH_3)$ which is an unsubstituted alkylaminoalkyl group.

[0065] The phrase "substituted alkylaminoalkyl" refers to an unsubstituted alkylaminoalkyl group as defined above except where one or more bonds to a carbon or hydrogen atom in one or both of the alkyl groups is replaced by a bond to a non-carbon or non-hydrogen atom as described above with respect to substituted alkyl groups except that the bond to the nitrogen atom in all alkylaminoalkyl groups does not by itself qualify all alkylaminoalkyl groups as being substituted. However, substituted alkylaminoalkyl groups does include groups in which the hydrogen bonded to the nitrogen atom of the group is replaced with a non-carbon and non-hydrogen atom.

[0066] The phrase "unsubstituted dialkylaminoalkyl" refers to an unsubstituted alkyl group as defined above in which a carbon bond or hydrogen bond

is replaced by a bond to a nitrogen atom which is bonded to two other similar or different unsubstituted alkyl groups as defined above.

[0067] The phrase "substituted dialkylaminoalkyl" refers to an unsubstituted dialkylaminoalkyl group as defined above in which one or more bonds to a carbon or hydrogen atom in one or more of the alkyl groups is replaced by a bond to a non-carbon and non-hydrogen atom as described with respect to substituted alkyl groups. The bond to the nitrogen atom in all dialkylaminoalkyl groups does not by itself qualify all dialkylaminoalkyl groups as being substituted.

[0068] The phrase "unsubstituted alkoxy" refers to a hydroxyl group (-OH) in which the bond to the hydrogen atom is replaced by a bond to a carbon atom of an otherwise unsubstituted alkyl group as defined above.

[0069] The phrase "substituted alkoxy" refers to a hydroxyl group (-OH) in which the bond to the hydrogen atom is replaced by a bond to a carbon atom of an otherwise substituted alkyl group as defined above.

[0070] The phrase "unsubstituted heterocyclyloxy" refers to a hydroxyl group (-OH) in which the bond to the hydrogen atom is replaced by a bond to a ring atom of an otherwise unsubstituted heterocyclyl group as defined above.

[0071] The phrase "substituted heterocyclyloxy" refers to a hydroxyl group (-OH) in which the bond to the hydrogen atom is replaced by a bond to a ring atom of an otherwise substituted heterocyclyl group as defined above.

[0072] The phrase "unsubstituted heterocyclyloxyalkyl" refers to an unsubstituted alkyl group as defined above in which a carbon bond or hydrogen bond is replaced by a bond to an oxygen atom which is bonded to an unsubstituted heterocyclyl group as defined above.

[0073] The phrase "substituted heterocyclyloxyalkyl" refers to an unsubstituted heterocyclyloxyalkyl group as defined above in which a bond to a carbon or hydrogen group of the alkyl group of the heterocyclyloxyalkyl group is bonded to a non-carbon and non-hydrogen atom as described above with respect to

substituted alkyl groups or in which the heterocyclyl group of the heterocyclyloxyalkyl group is a substituted heterocyclyl group as defined above.

[0074] The phrase "unsubstituted heterocyclylalkoxy" refers to an unsubstituted alkyl group as defined above in which a carbon bond or hydrogen bond is replaced by a bond to an oxygen atom which is bonded to the parent compound, and in which another carbon or hydrogen bond of the unsubstituted alkyl group is bonded to an unsubstituted heterocyclyl group as defined above.

[0075] The phrase "substituted heterocyclylalkoxy" refers to an unsubstituted heterocyclylalkoxy group as defined above in which a bond to a carbon or hydrogen group of the alkyl group of the heterocyclylalkoxy group is bonded to a non-carbon and non-hydrogen atom as described above with respect to substituted alkyl groups or in which the heterocyclyl group of the heterocyclylalkoxy group is a substituted heterocyclyl group as defined above. Further, a substituted heterocyclylalkoxy group also includes groups in which a carbon bond or a hydrogen bond to the alkyl moiety of the group may be substituted with one or more additional substituted and unsubstituted heterocycles. Examples include but are not limited to pyrid-2-ylmorpholin-4-ylmethyl and 2-pyrid-3-yl-2-morpholin-4-ylethyl.

[0076] The phrase "unsubstituted arylaminoalkyl" refers to an unsubstituted alkyl group as defined above in which a carbon bond or hydrogen bond is replaced by a bond to a nitrogen atom which is bonded to at least one unsubstituted aryl group as defined above.

[0077] The phrase "substituted arylaminoalkyl" refers to an unsubstituted arylaminoalkyl group as defined above except where either the alkyl group of the arylaminoalkyl group is a substituted alkyl group as defined above or the aryl group of the arylaminoalkyl group is a substituted aryl group except that the bonds to the nitrogen atom in all arylaminoalkyl groups does not by itself qualify all arylaminoalkyl groups as being substituted. However, substituted arylaminoalkyl groups does include groups in which the hydrogen bonded to the nitrogen atom of the group is replaced with a non-carbon and non-hydrogen atom.

[0078] The phrase "unsubstituted heterocyclylaminoalkyl" refers to an unsubstituted alkyl group as defined above in which a carbon or hydrogen bond is replaced by a bond to a nitrogen atom which is bonded to at least one unsubstituted heterocyclyl group as defined above.

[0079] The phrase "substituted heterocyclylaminoalkyl" refers to unsubstituted heterocyclylaminoalkyl groups as defined above in which the heterocyclyl group is a substituted heterocyclyl group as defined above and/or the alkyl group is a substituted alkyl group as defined above. The bonds to the nitrogen atom in all heterocyclylaminoalkyl groups does not by itself qualify all heterocyclylaminoalkyl groups as being substituted. However, substituted heterocyclylaminoalkyl groups do include groups in which the hydrogen bonded to the nitrogen atom of the group is replaced with a non-carbon and non-hydrogen atom.

[0080] The phrase "unsubstituted alkylaminoalkoxy" refers to an unsubstituted alkyl group as defined above in which a carbon or hydrogen bond is replaced by a bond to an oxygen atom which is bonded to the parent compound and in which another carbon or hydrogen bond of the unsubstituted alkyl group is bonded to a nitrogen atom which is bonded to a hydrogen atom and an unsubstituted alkyl group as defined above.

[0081] The phrase "substituted alkylaminoalkoxy" refers to unsubstituted alkylaminoalkoxy groups as defined above in which a bond to a carbon or hydrogen atom of the alkyl group bonded to the oxygen atom which is bonded to the parent compound is replaced by one or more bonds to a non-carbon and non-hydrogen atoms as discussed above with respect to substituted alkyl groups and/or if the hydrogen bonded to the amino group is bonded to a non-carbon and non-hydrogen atom and/or if the alkyl group bonded to the nitrogen of the amine is bonded to a non-carbon and non-hydrogen atom as described above with respect to substituted alkyl groups. The presence of the amine and alkoxy functionality in all alkylaminoalkoxy groups does not by itself qualify all such groups as substituted alkylaminoalkoxy groups.

[0082] The phrase "unsubstituted dialkylaminoalkoxy" refers to an unsubstituted alkyl group as defined above in which a carbon or hydrogen bond is replaced by a bond to an oxygen atom which is bonded to the parent compound and in which another carbon or hydrogen bond of the unsubstituted alkyl group is bonded to a nitrogen atom which is bonded to two other similar or different unsubstituted alkyl groups as defined above.

[0083] The phrase "substituted dialkylaminoalkoxy" refers to an unsubstituted dialkylaminoalkoxy group as defined above in which a bond to a carbon or hydrogen atom of the alkyl group bonded to the oxygen atom which is bonded to the parent compound is replaced by one or more bonds to a non-carbon and non-hydrogen atoms as discussed above with respect to substituted alkyl groups and/or if one or more of the alkyl groups bonded to the nitrogen of the amine is bonded to a non-carbon and non-hydrogen atom as described above with respect to substituted alkyl groups. The presence of the amine and alkoxy functionality in all dialkylaminoalkoxy groups does not by itself qualify all such groups as substituted dialkylaminoalkoxy groups.

[0084] The term "protected" with respect to hydroxyl groups, amine groups, and sulfhydryl groups refers to forms of these functionalities which are protected from undesirable reaction with a protecting group known to those skilled in the art such as those set forth in Protective Groups in Organic Synthesis, Greene, T.W.; Wuts, P. G. M., John Wiley & Sons, New York, NY, (3rd Edition, 1999) which can be added or removed using the procedures set forth therein. Examples of protected hydroxyl groups include, but are not limited to, silyl ethers such as those obtained by reaction of a hydroxyl group with a reagent such as, but not limited to, *t*-butyldimethyl-chlorosilane, trimethylchlorosilane, triisopropylchlorosilane, triethylchlorosilane; substituted methyl and ethyl ethers such as, but not limited to methoxymethyl ether, methythiomethyl ether, benzyloxymethyl ether, *t*-butoxymethyl ether, 2-methoxyethoxymethyl ether, tetrahydropyranyl ethers, 1-ethoxyethyl ether, allyl ether, benzyl ether; esters such as, but not limited to, benzoylformate, formate, acetate, trichloroacetate, and trifluoroacetate. Examples of protected amine groups include, but are not limited to, amides such as, formamide, acetamide, trifluoroacetamide, and benzamide; imides, such as phthalimide, and

dithiosuccinimide; and others. Examples of protected sulfhydryl groups include, but are not limited to, thioethers such as S-benzyl thioether, and S-4-picolyl thioether; substituted S-methyl derivatives such as hemithio, dithio and aminothio acetals; and others.

[0085] A "pharmaceutically acceptable salt" includes a salt with an inorganic base, organic base, inorganic acid, organic acid, or basic or acidic amino acid. As salts of inorganic bases, the invention includes, for example, alkali metals such as sodium or potassium; alkaline earth metals such as calcium and magnesium or aluminum; and ammonia. As salts of organic bases, the invention includes, for example, trimethylamine, triethylamine, pyridine, picoline, ethanolamine, diethanolamine, and triethanolamine. As salts of inorganic acids, the instant invention includes, for example, hydrochloric acid, hydroboric acid, nitric acid, sulfuric acid, and phosphoric acid. As salts of organic acids, the instant invention includes, for example, formic acid, acetic acid, trifluoroacetic acid, fumaric acid, oxalic acid, tartaric acid, lactic acid, maleic acid, citric acid, succinic acid, malic acid, methanesulfonic acid, benzenesulfonic acid, and p-toluenesulfonic acid. As salts of basic amino acids, the instant invention includes, for example, arginine, lysine and ornithine. Acidic amino acids include, for example, aspartic acid and glutamic acid.

[0086] In one aspect, the invention provides a method of modulating an inflammatory response and/or reducing cellular adhesion in a subject. Such methods include administering to the subject a compound of Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof. The inflammatory response is modulated in the subject and/or cellular adhesion is reduced in the subject after administration of the compound, the tautomer, the pharmaceutically acceptable salt of the compound, the pharmaceutically acceptable salt of the tautomer, or the mixture thereof.

[0087] In one embodiment, the invention provides a method of treating a disorder related to inflammation in a human or animal subject. The method includes administering to the human or animal subject an effective amount of a compound of

Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof. Inflammation and inflammatory responses may occur with various biological conditions. Examples of such biological conditions may include cancer, autoimmune diseases, asthma, allergies, eczema, microbial infections, traumatic injuries such as burns or cuts, lupus, arthritis, cardiovascular disease such as, but not limited to, strokes and ischemic injuries, respiratory bacterial and viral infections, and other conditions associated with inflammatory responses.

[0088] In another embodiment, the invention provides a method of treating a disorder related to cellular adhesion in a human or animal subject. The method includes administering to the human or animal subject an effective amount of a compound of Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof.

[0089] In another embodiment, the invention provides a method of decreasing cellular adhesion molecules such as ICAM, VCAM, E-selectin, MMP-2, or MMP-9 levels in a human or animal subject. The method includes administering to the human or animal subject a compound of Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof. The amount of the cellular adhesion molecule is typically reduced in the subject after administration.

[0090] In another embodiment, the invention provides a method of decreasing circulating ICAM, VCAM, E-selectin, MMP-2, or MMP-9 levels in a human or animal subject. The method includes administering to the human or animal subject a compound of Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof.

[0091] In another embodiment, the invention provides a method of decreasing circulating cell adhesion molecules in a human or animal subject. The method

includes administering to the human or animal subject a compound of Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof.

[0092] In yet another embodiment, the invention provides a method of monitoring the progression of a disease or treatment in a human or animal subject. The method includes administering to the human or animal subject a compound of Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof and measuring the amounts of a molecule such as ICAM, VCAM, E-selectin, MMP-2, or MMP-9 levels in the subject.

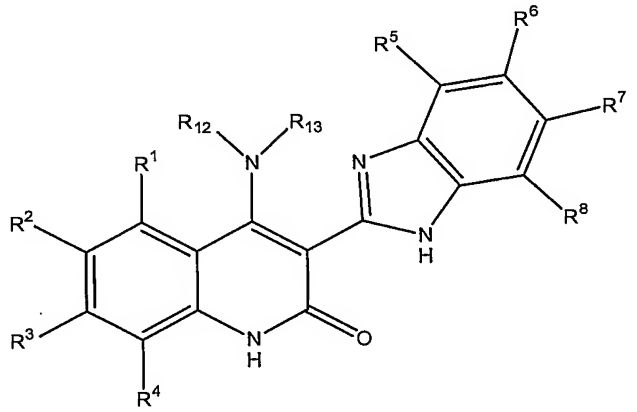
[0093] In another aspect, the invention provides a method of monitoring the progression of a disease or treatment in a human or animal subject. The method includes measuring the amount of at least one cell adhesion molecule in the subject after administration of a compound of Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof to the subject. In some embodiments, the cell adhesion molecule is selected from inducible cell adhesion molecule (ICAM), vascular cell adhesion molecule (VCAM), or endothelial leukocyte adhesion molecule (E-Selectin). Some such methods further include withdrawing a sample of blood from the subject and then measuring the amount of the at least one cell adhesion molecule in at least a portion of the sample.

[0094] In another aspect, the invention provides a method of identifying a subject in need of a compound of Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof. The method includes measuring the amount of at least one cell adhesion molecule in the subject before, during, or after administration of the compound of Structure I, the tautomer of the compound, the pharmaceutically acceptable salt of the compound, the pharmaceutically acceptable salt of the tautomer, or the mixture thereof to the subject. In some embodiments, the cell adhesion molecule is selected from inducible cell adhesion molecule, vascular

cell adhesion molecule, or endothelial leukocyte adhesion molecule. In some embodiments, the cell adhesion molecule is selected from inducible cell adhesion molecule (ICAM), vascular cell adhesion molecule (VCAM), or endothelial leukocyte adhesion molecule (E-Selectin). Some such methods further include withdrawing a sample of blood from the subject and then measuring the amount of the at least one cell adhesion molecule in at least a portion of the sample.

[0095] In some embodiments of any of the methods described herein, the subject is a cancer patient.

[0096] Structure I has the following formula:



I

wherein,

R^1, R^2, R^3, and R^4 may be the same or different and are independently selected from the group consisting of H, Cl, Br, F, I, -CN, -NO_2, -OH, -OR^{15} groups, -$NR^{16}R^{17}$ groups, substituted and unsubstituted amidinyl groups, substituted and unsubstituted guanidinyl groups, substituted and unsubstituted primary, secondary, and tertiary alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted alkenyl groups, substituted and unsubstituted alkynyl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted

(alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylalkyl groups, and -C(=O)R^{18} groups;

R^5, R^6, R^7, and R^8 may be the same or different and are independently selected from the group consisting of H, Cl, Br, F, I, -NO_2, -OH, -OR^{19} groups, -$NR^{20}R^{21}$ groups, -SH, -SR^{22} groups, -S(=O)R^{23} groups, -$S(=O)_2R^{24}$ groups, -CN, substituted and unsubstituted amidinyl groups, substituted and unsubstituted guanidinyl groups, substituted and unsubstituted primary, secondary, and tertiary alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted alkenyl groups, substituted and unsubstituted alkynyl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylalkyl groups, -C(=O)R^{25} groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{12} is selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups;

R^{13} is selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, -OH, alkoxy groups, aryloxy groups, -NH_2, substituted and unsubstituted heterocyclylalkyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted alkylamino groups, substituted and unsubstituted arylamino groups, substituted and unsubstituted dialkylamino groups, substituted and unsubstituted diarylamino groups, substituted and unsubstituted (alkyl)(aryl)amino groups, -C(=O)H, -C(=O)-alkyl

groups, -C(=O)-aryl groups, -C(=O)O-alkyl groups, -C(=O)O-aryl groups, $-C(=O)NH_2$, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, $-C(=O)N(alkyl)_2$ groups, $-C(=O)N(aryl)_2$ groups, -C(=O)N(alkyl)(aryl) groups, -C(=O)-heterocyclyl groups, -C(=O)-O-heterocyclyl groups, -C(=O)NH(heterocyclyl) groups, $-C(=O)-N(heterocyclyl)_2$ groups, –C(=O)-N(alkyl)(heterocyclyl) groups, -C(=O)-N(aryl)(heterocyclyl) groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{15} and R^{19} may be the same or different and are independently selected from the group consisting of substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted heterocyclylalkyl groups, -C(=O)H, -C(=O)-alkyl groups, -C(=O)-aryl groups, $-C(=O)NH_2$, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, $-C(=O)N(alkyl)_2$ groups, $-C(=O)N(aryl)_2$ groups, –C(=O)N(alkyl)(aryl) groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylaminoalkyl, substituted and unsubstituted diheterocyclylaminoalkyl, substituted and unsubstituted (heterocyclyl)(alkyl)aminoalkyl, substituted and unsubstituted (heterocyclyl)(aryl)aminoalkyl, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{16} and R^{20} may be the same or different and are independently selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups;

R^{17} and R^{21} may be the same or different and are independently selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, -C(=O)H, -C(=O)-alkyl groups, –C(=O)-aryl groups,$-C(=O)NH_2$, -C(=O)NH(alkyl)

groups, -C(=O)NH(aryl) groups, -C(=O)N(alkyl)$_2$ groups, -C(=O)N(aryl)$_2$ groups, -C(=O)N(alkyl)(aryl) groups, -C(=O)O-alkyl groups, -C(=O)O-aryl groups, substituted and unsubstituted heterocyclylalkyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, -C(=O)-heterocyclyl groups, -C(=O)-O-heterocyclyl groups, -C(=O)NH(heterocyclyl) groups, -C(=O)-N(heterocyclyl)$_2$ groups, -C(=O)-N(alkyl)(heterocyclyl) groups, -C(=O)-N(aryl)(heterocyclyl) groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{18}, R^{23}, R^{24}, and R^{25} may be the same or different and are independently selected from the group consisting of H, -NH_2, -NH(alkyl) groups, -NH(aryl) groups, -N(alkyl)$_2$ groups, -N(aryl)$_2$ groups, -N(alkyl)(aryl) groups, -NH(heterocyclyl) groups, -N(heterocyclyl)(alkyl) groups, -N(heterocyclyl)(aryl) groups, -N(heterocyclyl)$_2$ groups, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, -OH, substituted and unsubstituted alkoxy groups, substituted and unsubstituted aryloxy groups, substituted and unsubstituted heterocyclyl groups, -NHOH, -N(alkyl)OH groups, -N(aryl)OH groups, -N(alkyl)O-alkyl groups, -N(aryl)O-alkyl groups, -N(alkyl)O-aryl groups, and -N(aryl)O-aryl groups; and

R^{22} is selected from the group consisting of substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups.

[0097] In some embodiments of the pharmaceutically acceptable salts of the compounds or the tautomers of the compounds of Structure I, at least one of R^5, R^6, R^7, or R^8 is selected from the group consisting of substituted and unsubstituted amidinyl groups, substituted and unsubstituted guanidinyl groups, substituted and unsubstituted saturated heterocyclyl groups, substituted and unsubstituted

alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylalkyl groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups; $-OR^{19}$ groups wherein R^{19} is selected from the group consisting of substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted heterocyclylalkyl groups, -C(=O)H, –C(=O)-aryl groups, -C(=O)NH_2, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, -C(=O)$N(alkyl)_2$ groups, -C(=O)$N(aryl)_2$ groups, -C(=O)N(alkyl)(aryl) groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted diheterocyclylaminoalkyl groups, substituted and unsubstituted (heterocyclyl)(alkyl)aminoalkyl groups, substituted and unsubstituted (heterocyclyl)(aryl)aminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups; $-NR^{20}R^{21}$ groups wherein R^{20} is selected from the group consisting of substituted and unsubstituted heterocyclyl groups; $-NR^{20}R^{21}$ groups wherein R^{21} is selected from the group consisting of substituted and unsubstituted heterocyclyl groups, -C(=O)H, –C(=O)-aryl groups, -C(=O)NH_2, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, -C(=O)$N(alkyl)_2$ groups, -C(=O)$N(aryl)_2$ groups, -C(=O)N(alkyl)(aryl) groups, -C(=O)O-alkyl groups, -C(=O)O-aryl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl

groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, substituted and unsubstituted heterocyclylalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups; and $-C(=O)R^{25}$ groups wherein R^{25} is selected from the group consisting of H, $-NH_2$, -NH(alkyl) groups, -NH(aryl) groups, $-N(alkyl)_2$ groups, $-N(aryl)_2$ groups, -N(alkyl)(aryl) groups, -NH(heterocyclyl) groups, -N(heterocyclyl)(alkyl) groups, -N(heterocyclyl)(aryl) groups, $-N(heterocyclyl)_2$ groups, substituted and unsubstituted aryl groups, substituted and unsubstituted aryloxy groups, and substituted and unsubstituted heterocyclyl groups.

[0098] In one embodiment, the invention relates to a pharmaceutically acceptable salt of 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one (Compound 1) or a tautomer thereof. In some such embodiments, the salt is selected from the group consisting of tartrate, malate, lactate, bis-acetate, citrate, mesylate, bismesylate and bishydrochloride.

[0099] In some specific embodiments, the compound of structure I is a lactate salt of 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one or a tautomer thereof.

[0100] In some specific embodiments, the pharmaceutically acceptable salt of the compound of Structure I, the pharmaceutically acceptable salt of the tautomer, or the mixture thereof is administered to the subject, and the salt is a lactate salt.

[0101] In some embodiments, at least one of R^{12} and R^{13} is H, and in other embodiments, both R^{12} and R^{13} are H.

[0102] In a some embodiments, R^1 is selected from the group consisting of F, Cl, substituted and unsubstituted alkoxy groups, substituted and unsubstituted heterocyclylalkoxy groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted alkylaminoalkoxy groups, substituted and unsubstituted arylaminoalkoxy groups, substituted and unsubstituted dialkylaminoalkoxy groups,

substituted and unsubstituted diarylaminoalkoxy groups, and substituted and unsubstituted (alkyl)(aryl)aminoalkoxy groups.

[0103] In some embodiments, R^1 is F and R^2, R^3, R^3, R^4, R^5, and R^8 are all H, and one of R^6 or R^7 is H.

[0104] In some other embodiments, at least one of R^5, R^6, R^7, and R^8 is a substituted or unsubstituted heterocyclyl group.

[0105] In still other embodiments, at least one of R^5, R^6, R^7, and R^8 is a substituted or unsubstituted heterocyclyl group comprising at least one O or N atom.

[0106] In yet other embodiments, at least one of R^5, R^6, R^7, and R^8 is a substituted or unsubstituted heterocyclyl group and the heterocyclyl group is selected from the group consisting of morpholine, piperazine, piperidine, pyrrolidine, thiomorpholine, homopiperazine, tetrahydrothiophene, tetrahydrofuran, and tetrahydropyran.

[0107] In yet other embodiments, at least one of R^6 or R^7 is a substituted or unsubstituted heterocyclyl group.

[0108] In yet other embodiments, at least one of R^6 or R^7 is a substituted or unsubstituted heterocyclyl group comprising at least one O or N atom.

[0109] In yet other embodiments, one of R^6 or R^7 is a substituted or unsubstituted heterocyclyl group and the heterocyclyl group is selected from the group consisting of morpholine, piperazine, piperidine, pyrrolidine, thiomorpholine, homopiperazine, tetrahydrothiophene, tetrahydrofuran, and tetrahydropyran.

[0110] In still other particular embodiments, one of R^6 or R^7 is selected from the group consisting of substituted and unsubstituted morpholine groups, and substituted and unsubstituted piperazine groups. In some such embodiments, one of R^6 or R^7 is a piperazine N-oxide or is an N-alkyl substituted piperazine.

[0111] In yet other embodiments, at least one of and in some embodiments one of R^6 or R^7 is selected from the group consisting of $-NR^{20}R^{21}$ groups wherein R^{20}

is selected from the group consisting of substituted and unsubstituted heterocyclyl groups; and $-NR^{20}R^{21}$ groups wherein R^{21} is selected from the group consisting of substituted and unsubstituted heterocyclyl groups, groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, substituted and unsubstituted heterocyclylalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups.

[0112] In yet another embodiment, R^1 is selected from the group consisting of H and F.

[0113] In yet another embodiment, the compounds and their corresponding salts and tautomers are provided in the following two tables below. The synthesis of these compounds is described in U.S. Patent No. 6,605,617, published U.S. Patent Application No. 2004/0092535, published U.S. Patent Application No. 2004/0220196 as are various kinase assay procedures. Each of these references is, therefore, hereby incorporated by reference in its entirety and for all purposes as if set forth in its entirety.

Table of Exemplary Compounds

Example	Name	LC/MS m/z (MH+)
1	4-amino-3-{5-[(3S)-3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	389.4
2	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-chloroquinolin-2(1H)-one	420
3	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-chloroquinolin-2(1H)-one	420
4	3-(1H-benzimidazol-2-yl)-4-[(3R)-3-(dimethylamino)pyrrolidin-1-yl]quinolin-2(1H)-one	374.2
5	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(3R)-3-(dimethylamino)pyrrolidin-1-yl]quinolin-2(1H)-one	408.1

6	4-amino-3-[5-(4-ethylpiperazin-1-yl)-1H-benzimidazol-2-yl]-1-methylquinolin-2(1H)-one	403.2
7	4-amino-3-(6-piperazin-1-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	361.2
8	4-amino-3-[6-(pyridin-4-ylmethyl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	368.2
9	4-amino-3-{5-[(3R,5S)-3,5-dimethylpiperazin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	389.4
10	4-amino-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	375.2
11	4-amino-3-(6-methyl-5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	376
12	4-amino-3-{5-[(1-methylpiperidin-3-yl)oxy]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	390.1
13	4-amino-3-{5-[(2R,6S)-2,6-dimethylmorpholin-4-yl]-6-fluoro-1H-benzimidazol-2-yl}quinolin-2(1H)-one	408.2
14	4-amino-3-{5-[(1-methylpyrrolidin-3-yl)oxy]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	376.2
15	4-amino-3-[5-(4-methyl-1,4-diazepan-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	389.2
16	4-amino-3-{5-[(3R)-3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	389.2
17	4-amino-6-chloro-3-{5-[(3R)-3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	423
18	ethyl {4-[2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazol-6-yl]piperazin-1-yl}acetate	447.2
19	4-amino-3-{6-[methyl(1-methylpiperidin-4-yl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	403.1
20	3-[6-(4-acetylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-aminoquinolin-2(1H)-one	403.3
21	4-amino-3-[6-(1,4'-bipiperidin-1'-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	443.3
22	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-1H-be-nzimidazole-6-carboxylic acid	321.2
23	4-amino-5-(methyloxy)-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	405.3
24	4-amino-3-{6-[4-(1-methylethyl)piperazin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	403.3
25	{4-[2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazol-6-yl]piperazin-1-yl}acetic acid	419.2
26	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)quinolin-2(1H)-one	386.1
27	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)quinolin-2(1H)-one	386.1
28	4-amino-3-[5-(4-ethylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	389.1

29	4-amino-3-(5-{(2S,5S)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	433.3
30	4-amino-6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	409.2
31	4-amino-6-chloro-3-{5-[(3S)-3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	423.1
32	4-amino-5,6-dichloro-3-{5-[(3S)-3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	457.2
33	4-amino-5,6-dichloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	443.2
34	4-amino-3-(1H-benzimidazol-2-yl)-6-[(pyridin-2-ylmethyl)oxy]quinolin-2(1H)-one	384.2
35	4-amino-3-(1H-benzimidazol-2-yl)-6-[(2R,6S)-2,6-dimethylmorpholin-4-yl]quinolin-2(1H)-one	390.1
36	4-amino-3-(1H-benzimidazol-2-yl)-6-morpholin-4-ylquinolin-2(1H)-one	362.2
37	4-amino-3-(1H-benzimidazol-2-yl)-5-[(1-methylpiperidin-3-yl)oxy]quinolin-2(1H)-one	390.2
38	4-amino-3-(1H-benzimidazol-2-yl)-5-[(pyridin-2-ylmethyl)oxy]quinolin-2(1H)-one	384.1
39	4-amino-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-5-[(pyridin-4-ylmethyl)oxy]quinolin-2(1H)-one	469.2
40	4-amino-3-(1H-benzimidazol-2-yl)-5-(methyloxy)quinolin-2(1H)-one	307.1
41	4-amino-3-(5-methyl-1H-benzimidazol-2-yl)-5-(methyloxy)quinolin-2(1H)-one	321.1
42	4-amino-3-{5-[(2R,6S)-2,6-dimethylmorpholin-4-yl]-1H-benzimidazol-2-yl}-5-(methyloxy)quinolin-2(1H)-one	420.2
43	4-amino-3-(1H-benzimidazol-2-yl)-5-morpholin-4-ylquinolin-2(1H)-one	362.2
44	4-amino-3-(1H-benzimidazol-2-yl)-5-[(2R,6S)-2,6-dimethylmorpholin-4-yl]quinolin-2(1H)-one	390.2
45	4-amino-3-(1H-benzimidazol-2-yl)-5-(4-methylpiperazin-1-yl)quinolin-2(1H)-one	375.1
46	4-amino-5,6-dichloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	430
47	3-{5-[(2-morpholin-4-ylethyl)oxy]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	391.3
48	4-amino-3-{5-[(3-pyrrolidin-1-ylpropyl)oxy]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	404
49	4-amino-3-{5-[(3-morpholin-4-ylpropyl)oxy]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	420.4
50	4-amino-6-fluoro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	380

51	4-amino-3-{5-[3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}-6-fluoroquinolin-2(1H)-one	407
52	4-amino-3-(1H-benzimidazol-2-yl)-6-fluoroquinolin-2(1H)-one	295
53	4-amino-3-(6-fluoro-5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	380
54	4-amino-3-{5-[(tetrahydrofuran-2-ylmethyl)oxy]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	377
55	4-amino-6-fluoro-3-(6-fluoro-5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	398
56	4-amino-3-[6-fluoro-5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	393
57	4-amino-3-(5-{[2-(methyloxy)ethyl]oxy}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	351
58	4-amino-3-[4,6-difluoro-5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	411
59	4-amino-3-{5-[3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}-5-fluoroquinolin-2(1H)-one	407.1
60	4-amino-5-fluoro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	393.1
61	4-amino-5-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	409.1
62	4-amino-3-{5-[3-(dimethylamino)pyrrolidin-1-yl]-6-fluoro-1H-benzimidazol-2-yl}quinolin-2(1H)-one	407.1
63	4-amino-5-chloro-3-{5-[3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	423.1
64	4-amino-6-chloro-3-{5-[3-(dimethylamino)pyrrolidin-1-yl]-6-fluoro-1H-benzimidazol-2-yl}quinolin-2(1H)-one	441
65	4-amino-5-[(2R,6S)-2,6-dimethylmorpholin-4-yl]-3-(3H-imidazo[4,5-b]pyridin-2-yl)quinolin-2(1H)-one	391.2
66	4-amino-3-(6-thiomorpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	378.4
67	4-amino-3-[5-(4-cyclohexylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	443.1
68	4-amino-3-{6-[3-(diethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	417.1
69	4-amino-3-[6-(4-pyridin-2-ylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	438.3
70	4-amino-3-[5-(4-methylpiperazin-1-yl)-3H-imidazo[4,5-b]pyridin-2-yl]quinolin-2(1H)-one	376.3

71	4-amino-6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-imidazo[4,5-b]pyridin-2-yl]quinolin-2(1H)-one	410.2
72	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N-methyl-N-(1-methylpiperidin-4-yl)-1H-benzimidazole-5-carboxamide	431.3
73	4-amino-3-(5-{[4-(1-methylethyl)piperazin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	431.3
74	4-amino-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-6-nitroquinolin-2(1H)-one	420.2
75	4-amino-3-[5-(1,4'-bipiperidin-1'-ylcarbonyl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	471.1
76	4-amino-3-{5-[(4-methylpiperazin-1-yl)carbonyl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	403.3
77	4-amino-3-[5-(1-oxidothiomorpholin-4-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	394.5
78	3-{5-[(4-acetylpiperazin-1-yl)carbonyl]-1H-benzimidazol-2-yl}-4-aminoquinolin-2(1H)-one	431.3
79	4-amino-3-(5-{[(3R)-3-(dimethylamino)pyrrolidin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	417.4
80	4-amino-3-(5-{[(3S)-3-(dimethylamino)pyrrolidin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	417.4
81	4-amino-3-(5-{[4-(dimethylamino)piperidin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	431.4
82	methyl 2-(4-amino-5-fluoro-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazole-6-carboxylate	353.2
83	4-amino-3-[5-(1,3'-bipyrrolidin-1'-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	415.5
84	4-amino-3-[5-(pyridin-3-yloxy)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	370.2
85	4-amino-5,6-bis(methyloxy)-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	435.5
86	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N-[2-(dimethylamino)ethyl]-N-methyl-1H-benzimidazole-5-carboxamide	405.3

87	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N-methyl-N-(1-methylpyrrolidin-3-yl)-1H-benzimidazole-5-carboxamide	417.2
88	4-amino-3-{5-[(5-methyl-2,5-diazabicyclo[2.2.1]hept-2-yl)carbonyl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	415.2
89	4-amino-3-{5-[(4-cyclohexylpiperazin-1-yl)carbonyl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	471.6
90	4-amino-3-{5-[(2-piperidin-1-ylethyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	403.2
91	ethyl 4-{[2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazol-5-yl]amino}piperidine-1-carboxylate	447.3
92	4-amino-3-[5-({(5R)-5-[(methyloxy)methyl]pyrrolidin-3-yl}amino)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	405.2
93	4-amino-3-{5-[(pyridin-2-ylmethyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	383.3
94	4-amino-3-[5-(piperidin-3-ylamino)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	375.2
95	4-amino-5-fluoro-3-{5-[(pyridin-2-ylmethyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	401.3
96	ethyl 4-{[2-(4-amino-5-fluoro-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazol-5-yl]amino}piperidine-1-carboxylate	465.5
97	4-amino-5-fluoro-3-[5-(piperidin-3-ylamino)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	393.3
98	4-amino-3-(1H-benzimidazol-2-yl)-6-bromoquinolin-2(1H)-one	357.1
99	4-amino-3-(1H-benzimidazol-2-yl)-7-bromoquinolin-2(1H)-one	357.1
100	4-amino-3-(5-bromo-1H-benzimidazol-2-yl)quinolin-2(1H)-one	357.1
101	N,N-dimethyl-2-(2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazole-5-carboxamide	333.1
102	4-amino-3-(5-thien-2-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	359.2

103	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N,N-dimethyl-1H-benzimidazole-5-sulfonamide	384.1
104	4-amino-6-iodo-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	501.1
105	4-amino-3-(5-{2-[(dimethylamino)methyl]-morpholin-4-yl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	419.2
106	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloro-6-iodoquinolin-2(1H)-one	547
107	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-nitroquinolin-2(1H)-one	431
108	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-methylquinolin-2(1H)-one	401
109	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6,7-difluoroquinolin-2(1H)-one	422
110	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloroquinolin-2(1H)-one	421
111	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-bromoquinolin-2(1H)-one	465
112	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinoline-6-carbonitrile	411
113	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoroquinolin-2(1H)-one	404
114	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6,7-bis(methyloxy)quinolin-2(1H)-one	447
115	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6,7-dichloroquinolin-2(1H)-one	455
116	1-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-4-carboxamide	531
117	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(3-hydroxypropyl)amino]quinolin-2(1H)-one	478
118	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(dimethylamino)-6-fluoroquinolin-2(1H)-one	448
119	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-fluoroquinolin-2(1H)-one	404
120	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(4-nitrophenyl)quinolin-2(1H)-one	508
121	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-{[2-(dimethylamino)ethyl]amino}-6-fluoroquinolin-2(1H)-one	491
122	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(1H-imidazol-1-yl)quinolin-2(1H)-one	471
123	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-[4-(methyloxy)phenyl]quinolin-2(1H)-one	493

124	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-morpholin-4-ylquinolin-2(1H)-one	490
125	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-6,7-difluoro-3-(3H-imidazo[4,5-b]pyridin-2-yl)quinolin-2(1H)-one	423
126	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(3-nitrophenyl)quinolin-2(1H)-one	508
127	1-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-3-carboxamide	531
128	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-methylquinolin-2(1H)-one	401
129	6-(3-acetylphenyl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(3H-imidazo[4,5-b]pyridin-2-yl)quinolin-2(1H)-one	506
130	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-chloroquinolin-2(1H)-one	421
131	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-fluoro-3-(3H-imidazo[4,5-b]pyridin-2-yl)-7-morpholin-4-ylquinolin-2(1H)-one	491
132	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(cyclopropylamino)-6-fluoroquinolin-2(1H)-one	460
133	N-{3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(3H-imidazo[4,5-b]pyridin-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]phenyl}acetamide	521
134	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(4-methylpiperazin-1-yl)quinolin-2(1H)-one	503
135	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-fluoro-7-(1H-imidazol-1-yl)-3-(3H-imidazo[4,5-b]pyridin-2-yl)quinolin-2(1H)-one	472
136	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(2-pyridin-2-ylethyl)amino]quinolin-2(1H)-one	525
137	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-piperidin-1-ylquinolin-2(1H)-one	488
138	6-chloro-3-(3H-imidazo[4,5-b]pyridin-2-yl)quinolin-2(1H)-one	298
139	ethyl 1-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-4-carboxylate	560
140	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(1-benzothien-2-yl)quinolin-2(1H)-one	519
141	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-pyrrolidin-1-ylquinolin-2(1H)-one	474
142	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(3H-imidazo[4,5-b]pyridin-2-yl)-6-[2-(trifluoromethyl)phenyl]quinolin-2(1H)-one	532
143	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(3H-imidazo[4,5-b]pyridin-2-yl)-6-[2-(methyloxy)phenyl]quinolin-2(1H)-one	494
144	ethyl 1-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-3-carboxylate	560

145	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(4-ethylphenyl)quinolin-2(1H)-one	491
146	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(2-methylpropyl)amino]quinolin-2(1H)-one	476
147	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-methylquinolin-2(1H)-one	401
148	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-(2,4-dichlorophenyl)-3-(3H-imidazo[4,5-b]pyridin-2-yl)quinolin-2(1H)-one	532
149	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-[3-(trifluoromethyl)phenyl]quinolin-2(1H)-one	531
150	3-(1H-benzimidazol-2-yl)-4-(dimethylamino)quinolin-2(1H)-one	305
151	4-hydroxy-3-(1H-imidazo[4,5-f]quinolin-2-yl)quinolin-2(1H)-one	329
152	4-hydroxy-3-(1H-imidazo[4,5-b]pyridin-2-yl)quinolin-2(1H)-one	279
153	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	525
154	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]benzamide	524
155	N-{3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]phenyl}acetamide	538
156	3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	525
157	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	525
158	N-{3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]phenyl}acetamide	538
159	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloro-6-(2-methylphenyl)quinolin-2(1H)-one	511
160	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinoline-7-carbonitrile	411
161	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(methyloxy)quinolin-2(1H)-one	417
162	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]benzamide	506
163	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(methyloxy)quinolin-2(1H)-one	434
164	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-chloro-7-(dimethylamino)quinolin-2(1H)-one	464
165	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(dimethylamino)-6-iodoquinolin-2(1H)-one	555

166	3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(1H-imidazol-1-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	573
167	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-7-piperidin-1-yl-1,2-dihydroquinolin-6-yl]benzoic acid	590
168	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(methyloxy)-6-[4-(methylsulfonyl)phenyl]quinolin-2(1H)-one	571
169	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-8-methylquinolin-2(1H)-one	401
170	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6,7-difluoroquinolin-2(1H)-one	422
171	3-(1H-benzimidazol-2-yl)-6-methyl-4-(piperidin-3-ylamino)quinolin-2(1H)-one	374
172	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-[2-(methyloxy)phenyl]quinolin-2(1H)-one	493
173	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-[3-(methyloxy)phenyl]quinolin-2(1H)-one	493
174	3-(1H-benzimidazol-2-yl)-6,7-difluoro-4-(piperidin-4-ylamino)quinolin-2(1H)-one	396
175	3-(1H-benzimidazol-2-yl)-6,7-difluoro-4-(pyrrolidin-3-ylamino)quinolin-2(1H)-one	382
176	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(3-morpholin-4-ylpropyl)amino]quinolin-2(1H)-one	439
177	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-(piperidin-4-ylamino)quinolin-2(1H)-one	480
178	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(piperidin-2-ylmethyl)amino]quinolin-2(1H)-one	494
179	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	506
180	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-(piperidin-3-ylamino)quinolin-2(1H)-one	480
181	6-chloro-4-{[2-(dimethylamino)ethyl]amino}-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	468
182	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	506
183	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(piperidin-3-ylmethyl)amino]quinolin-2(1H)-one	494
184	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(piperidin-4-ylmethyl)amino]quinolin-2(1H)-one	494
185	4-{[(1R,2R)-2-aminocyclohexyl]amino}-6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	494
186	4-[(4-aminocyclohexyl)amino]-6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	494
187	4-{[(2S)-2-amino-3-methylbutyl]amino}-6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	482
188	4-({[4-(aminomethyl)phenyl]methyl}amino)-6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	516

189	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(pyrrolidin-2-ylmethyl)amino]quinolin-2(1H)-one	480
190	4-{[(1R)-1-(aminomethyl)propyl]amino}-6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	468
191	4-{[(1S)-2-amino-1-(phenylmethyl)ethyl]amino}-6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	530
192	6-chloro-4-{[3-(4-methylpiperazin-1-yl)propyl]amino}-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	537
193	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-{[1-(phenylmethyl)piperidin-4-yl]amino}quinolin-2(1H)-one	570
194	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(3-morpholin-4-ylpropyl)amino]quinolin-2(1H)-one	524
195	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(2-piperidin-1-ylethyl)amino]quinolin-2(1H)-one	508
196	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(pyridin-3-ylmethyl)amino]quinolin-2(1H)-one	488
197	6-chloro-4-{[3-(1H-imidazol-1-yl)propyl]amino}-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	505
198	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(pyridin-4-ylmethyl)amino]quinolin-2(1H)-one	488
199	6-chloro-4-{[2-(methylamino)ethyl]amino}-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	454
200	6-chloro-4-{[(2-methyl-1-piperidin-4-yl-1H-benzimidazol-5-yl)methyl]amino}-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	624
201	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(2-pyrrolidin-1-ylethyl)amino]quinolin-2(1H)-one	494
202	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-(pyrrolidin-3-ylamino)quinolin-2(1H)-one	466
203	4-{[(1R,2R)-2-aminocyclohexyl]amino}-6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	507
204	4-[(4-aminocyclohexyl)amino]-6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	507
205	4-({[4-(aminomethyl)phenyl]methyl}amino)-6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	529
206	6-chloro-4-{[2-(methylamino)ethyl]amino}-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	467
207	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-{[3-(4-methylpiperazin-1-yl)propyl]amino}quinolin-2(1H)-one	550
208	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-{[1-(phenylmethyl)piperidin-4-yl]amino}quinolin-2(1H)-one	583
209	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-[(2-pyrrolidin-1-ylethyl)amino]quinolin-2(1H)-one	507
210	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-(pyrrolidin-3-ylamino)quinolin-2(1H)-one	479
211	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-(piperidin-4-ylamino)quinolin-2(1H)-one	493
212	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(2-piperidin-2-ylethyl)amino]quinolin-2(1H)-one	508

213	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	506
214	7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-(piperidin-3-ylamino)quinolin-2(1H)-one	480
215	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-[(piperidin-2-ylmethyl)amino]quinolin-2(1H)-one	507
216	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-{[(2S)-pyrrolidin-2-ylmethyl]amino}quinolin-2(1H)-one	493
217	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-{[(2R)-pyrrolidin-2-ylmethyl]amino}quinolin-2(1H)-one	493
218	6-chloro-4-({[(2S)-1-ethylpyrrolidin-2-yl]methyl}amino)-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	521
219	6-chloro-4-({[(2R)-1-ethylpyrrolidin-2-yl]methyl}amino)-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	521
220	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-[4-(methyloxy)phenyl]quinolin-2(1H)-one	493
221	6-(3-aminophenyl)-4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)quinolin-2(1H)-one	478

Table of Additional Exemplary Compounds

Example	Name	LC/MS m/z (MH^+)
222	4-amino-3-(1H-benzimidazol-2-yl)quinolin-2(1H)-one	277.3
223	4-amino-3-(1H-benzimidazol-2-yl)-6,7-dimethoxyquinolin-2(1H)-one	337.3
224	3-(1H-benzimidazol-2-yl)-4-(dimethylamino)-1-methylquinolin-2(1H)-one	319.4
225	3-(1H-benzimidazol-2-yl)-4-{[2-(dimethylamino)ethyl]amino}-1-methylquinolin-2(1H)-one	362.4
226	4-amino-3-(1H-benzimidazol-2-yl)-1-methylquinolin-2(1H)-one	291.3
227	4-amino-3-(6-methyl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	291.3
228	3-(1H-benzimidazol-2-yl)-4-{[3-(1H-imidazol-1-yl)propyl]amino}quinolin-2(1H)-one	385.4
229	3-(1H-benzimidazol-2-yl)-4-[(pyridin-3-ylmethyl)amino]quinolin-2(1H)-one	368.4
230	4-amino-3-(1H-benzimidazol-2-yl)-5-fluoroquinolin-2(1H)-one	295.3
231	3-(1H-benzimidazol-2-yl)-4-pyrrolidin-1-ylquinolin-2(1H)-one	331.4
232	3-(1H-benzimidazol-2-yl)-4-[(pyridin-4-ylmethyl)amino]quinolin-2(1H)-one	368.4
233	3-(1H-benzimidazol-2-yl)-4-{[2-(1-methylpyrrolidin-2-yl)ethyl]amino}quinolin-2(1H)-one	388.5
234	4-amino-3-(1H-benzimidazol-2-yl)-7-methylquinolin-2(1H)-one	291.3
235	4-amino-3-(1H-benzimidazol-2-yl)-7-chloroquinolin-2(1H)-one	311.7
236	4-amino-3-(1H-benzimidazol-2-yl)-6-chloroquinolin-2(1H)-one	311.7
237	4-amino-3-[6-(3-aminopyrrolidin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	361.4

238	3-(1H-benzimidazol-2-yl)-4-(diethylamino)quinolin-2(1H)-one	333.4
239	3-(1H-benzimidazol-2-yl)-4-(1,2-dimethylhydrazino)quinolin-2(1H)-one	320.4
240	4-amino-3-[5-(trifluoromethyl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	345.3
241	4-amino-3-(5,6-dichloro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	346.2
242	4-(3-aminopyrrolidin-1-yl)-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	431.5
243	4-amino-5-fluoro-3-(5-methyl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	309.3
244	4-amino-3-(1H-benzimidazol-2-yl)-6-nitroquinolin-2(1H)-one	322.3
245	4-amino-3-(4-methyl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	291.3
246	4-amino-3-(6-ethoxy-1H-benzimidazol-2-yl)quinolin-2(1H)-one	321.4
247	4-amino-3-(7-hydroxy-1H-benzimidazol-2-yl)quinolin-2(1H)-one	293.3
248	4-amino-3-(6-tert-butyl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	333.4
249	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazole-5-carbonitrile	302.3
250	4-amino-3-(5,6-dimethyl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	305.4
251	4-amino-3-(4,5-dimethyl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	305.4
252	4-amino-6-chloro-3-(5-methyl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	325.8
253	4-amino-3-(1H-benzimidazol-2-yl)-6,8-dichloroquinolin-2(1H)-one	346.2
254	4-amino-3-(1H-benzimidazol-2-yl)-5-chloroquinolin-2(1H)-one	311.7
255	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N,N-dimethyl-1H-benzimidazole-5-carboxamide	348.4
256	4-amino-3-{5-[3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	389.5
257	4-amino-3-(6-methoxy-5-methyl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	321.4
258	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazole-6-carboximidamide	319.3
259	4-amino-7-(3-aminophenyl)-3-(1H-benzimidazol-2-yl)quinolin-2(1H)-one	368.4
260	4-amino-3-(1H-benzimidazol-2-yl)-7-thien-2-ylquinolin-2(1H)-one	359.4
261	4-amino-3-(5-thien-3-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	359.4
262	4-amino-3-(1H-benzimidazol-2-yl)-7-thien-3-ylquinolin-2(1H)-one	359.4
263	4-{[(1S,2R)-2-aminocyclohexyl]amino}-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	459.6
264	4-{[(1R,2R)-2-aminocyclohexyl]amino}-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	459.6
265	4-{[(1S,2S)-2-aminocyclohexyl]amino}-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	459.6

266	4-amino-3-{5-[(2R,6S)-2,6-dimethylmorpholin-4-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	390.5
267	3-(1H-benzimidazol-2-yl)-4-morpholin-4-ylquinolin-2(1H)-one	347.4
268	3-(1H-benzimidazol-2-yl)-4-(piperidin-3-ylamino)quinolin-2(1H)-one	360.4
269	4-(1-azabicyclo[2.2.2]oct-3-ylamino)-3-(5-chloro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	420.9
270	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-chloro-3-(5-methyl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	434.9
271	6-chloro-3-(5-methyl-1H-benzimidazol-2-yl)-4-(piperidin-3-ylamino)quinolin-2(1H)-one	408.9
272	3-(1H-benzimidazol-2-yl)-4-[(2-hydroxyethyl)amino]quinolin-2(1H)-one	321.4
273	3-(1H-benzimidazol-2-yl)-6-chloro-4-(piperidin-3-ylamino)quinolin-2(1H)-one	394.9
274	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[(1S)-1-cyclohexylethyl]amino}quinolin-2(1H)-one	421.9
275	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(piperidin-3-ylmethyl)amino]quinolin-2(1H)-one	408.9
276	3-(1H-benzimidazol-2-yl)-6-chloro-4-(pyridin-4-ylamino)quinolin-2(1H)-one	388.8
277	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(piperidin-4-ylmethyl)amino]quinolin-2(1H)-one	408.9
278	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(2-morpholin-4-ylethyl)amino]quinolin-2(1H)-one	424.9
279	3-(1H-benzimidazol-2-yl)-6-chloro-4-(cyclohexylamino)quinolin-2(1H)-one	393.9
280	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[3-(1H-imidazol-1-yl)propyl]amino}quinolin-2(1H)-one	419.9
281	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[2-(dimethylamino)ethyl]amino}quinolin-2(1H)-one	382.9
282	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(cyclohexylmethyl)amino]quinolin-2(1H)-one	407.9
283	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(tetrahydrofuran-2-ylmethyl)amino]quinolin-2(1H)-one	395.9
284	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(pyridin-4-ylmethyl)amino]quinolin-2(1H)-one	402.9
285	3-(1H-benzimidazol-2-yl)-6,7-difluoro-4-(piperidin-3-ylamino)quinolin-2(1H)-one	396.4
286	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-bromoquinolin-2(1H)-one	465.4
287	3-(1H-benzimidazol-2-yl)-6-fluoro-4-(piperidin-3-ylamino)quinolin-2(1H)-one	378.4
288	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-methylquinolin-2(1H)-one	400.5
289	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoroquinolin-2(1H)-one	404.5
290	4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-1-propylquinolin-2(1H)-one	417.5
291	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[(1-ethylpyrrolidin-2-yl)methyl]amino}quinolin-2(1H)-one	422.9

292	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[3-(2-oxopyrrolidin-1-yl)propyl]amino}quinolin-2(1H)-one	436.9
293	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(piperidin-2-ylmethyl)amino]quinolin-2(1H)-one	408.9
294	3-(1H-benzimidazol-2-yl)-6-chloro-4-(4-methyl-1,4-diazepan-1-yl)quinolin-2(1H)-one	408.9
295	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(pyridin-3-ylmethyl)amino]quinolin-2(1H)-one	402.9
296	4-anilino-3-(1H-benzimidazol-2-yl)-6-chloroquinolin-2(1H)-one	387.8
297	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[(5-methylpyrazin-2-yl)methyl]amino}quinolin-2(1H)-one	417.9
298	3-(1H-benzimidazol-2-yl)-6-chloro-4-(piperidin-4-ylamino)quinolin-2(1H)-one	402.9
299	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[2-(1-methylpyrrolidin-2-yl)ethyl]amino}quinolin-2(1H)-one	422.9
300	3-(1H-benzimidazol-2-yl)-4-[(1H-benzimidazol-5-ylmethyl)amino]-6-chloroquinolin-2(1H)-one	441.9
301	3-(1H-benzimidazol-2-yl)-6-chloro-4-(piperidin-4-ylamino)quinolin-2(1H)-one	394.9
302	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(4-hydroxycyclohexyl)amino]quinolin-2(1H)-one	409.9
303	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-fluoroquinolin-2(1H)-one	404.5
304	3-(1H-benzimidazol-2-yl)-6,8-dimethyl-4-(piperidin-3-ylamino)quinolin-2(1H)-one	388.5
305	3-(1H-benzimidazol-2-yl)-5-fluoro-4-(piperidin-3-ylamino)quinolin-2(1H)-one	378.4
306	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6,8-dimethylquinolin-2(1H)-one	414.5
307	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6,8-dimethylquinolin-2(1H)-one	414.5
308	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloroquinolin-2(1H)-one	420.9
309	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(2-piperidin-1-ylethyl)amino]quinolin-2(1H)-one	422.9
310	4-({2-[(4-amino-5-nitropyridin-2-yl)amino]ethyl}amino)-3-(1H-benzimidazol-2-yl)-6-chloroquinolin-2(1H)-one	491.9
311	3-(1H-benzimidazol-2-yl)-6-chloro-4-({2-[(5-nitropyridin-2-yl)amino]ethyl}amino)quinolin-2(1H)-one	476.9
312	3-(1H-benzimidazol-2-yl)-4-[(1H-benzimidazol-2-ylmethyl)amino]-6-chloroquinolin-2(1H)-one	441.9
313	3-(1H-benzimidazol-2-yl)-6-chloro-4-(2,5-diazabicyclo[2.2.1]hept-2-yl)quinolin-2(1H)-one	392.9
314	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(2-{[5-(trifluoromethyl)pyridin-2-yl]amino}ethyl)amino]quinolin-2(1H)-one	499.9
315	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-methylquinolin-2(1H)-one	400.5
316	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-methylquinolin-2(1H)-one	400.5

317	3-(1H-benzimidazol-2-yl)-7-chloro-4-{[(2R)-pyrrolidin-2-ylmethyl]amino}quinolin-2(1H)-one	394.9
318	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(pyrrolidin-2-ylmethyl)amino]quinolin-2(1H)-one	394.9
319	6-[(2-{[3-(1H-benzimidazol-2-yl)-6-chloro-2-oxo-1,2-dihydroquinolin-4-yl]amino}ethyl)amino]nicotinamide	474.9
320	3-(1H-benzimidazol-2-yl)-6-chloro-4-(pyrrolidin-3-ylamino)quinolin-2(1H)-one	380.8
321	4-{[(2R)-2-aminobutyl]amino}-3-(1H-benzimidazol-2-yl)-6-chloroquinolin-2(1H)-one	382.9
322	4-{[(2S)-2-amino-3-phenylpropyl]amino}-3-(1H-benzimidazol-2-yl)-6-chloroquinolin-2(1H)-one	444.9
323	4-[(4-aminocyclohexyl)amino]-3-(1H-benzimidazol-2-yl)-6-chloroquinolin-2(1H)-one	408.9
324	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-iodoquinolin-2(1H)-one	512.4
325	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-iodoquinolin-2(1H)-one	512.4
326	3-(1H-benzimidazol-2-yl)-6,7-dimethoxy-4-(piperidin-3-ylamino)quinolin-2(1H)-one	420.5
327	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6,7-dimethoxyquinolin-2(1H)-one	446.5
328	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-nitroquinolin-2(1H)-one	431.5
329	3-(1H-benzimidazol-2-yl)-6-iodo-4-(piperidin-3-ylamino)quinolin-2(1H)-one	486.3
330	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-chloroquinolin-2(1H)-one	420.9
331	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[(1-piperidin-4-yl-1H-benzimidazol-6-yl)methyl]amino}quinolin-2(1H)-one	525.0
332	3-(1H-benzimidazol-2-yl)-6-methyl-4-[(piperidin-3-ylmethyl)amino]quinolin-2(1H)-one	388.5
333	3-(1H-benzimidazol-2-yl)-6-methyl-4-(piperidin-4-ylamino)quinolin-2(1H)-one	374.5
334	3-(1H-benzimidazol-2-yl)-6-methyl-4-[(piperidin-4-ylmethyl)amino]quinolin-2(1H)-one	388.5
335	3-(1H-benzimidazol-2-yl)-6-methyl-4-[(piperidin-2-ylmethyl)amino]quinolin-2(1H)-one	388.5
336	4-{[4-(2-aminoethoxy)benzyl]amino}-3-(1H-benzimidazol-2-yl)-6-chloroquinolin-2(1H)-one	460.9
337	4-{[2-(2-aminoethoxy)benzyl]amino}-3-(1H-benzimidazol-2-yl)-6-chloroquinolin-2(1H)-one	460.9
338	4-(1-azabicyclo[2.2.2]oct-3-ylamino)-3-(5-hydroxy-1H-benzimidazol-2-yl)quinolin-2(1H)-one	402.5
339	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinoline-6-carbonitrile	411.5
340	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6,7-dihydroxyquinolin-2(1H)-one	418.5
341	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6,7-dihydroxyquinolin-2(1H)-one	418.5

342	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinoline-6-carboxylic acid	430.5
343	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoroquinolin-2(1H)-one	404.5
344	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoroquinolin-2(1H)-one	404.5
345	2-(4-amino-2-oxo-1-propyl-1,2-dihydroquinolin-3-yl)-1H-benzimidazole-6-carbonitrile	344.4
346	tert-butyl 4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]-3,6-dihydropyridine-1(2H)-carboxylate	567.7
347	tert-butyl 4-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]-3,6-dihydropyridine-1(2H)-carboxylate	567.7
348	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(1,2,3,6-tetrahydropyridin-4-yl)quinolin-2(1H)-one	467.6
349	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-thien-2-ylquinolin-2(1H)-one	468.6
350	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(1,2,3,6-tetrahydropyridin-4-yl)quinolin-2(1H)-one	467.6
351	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2,4-difluorophenyl)quinolin-2(1H)-one	498.5
352	tert-butyl 2-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]-1H-pyrrole-1-carboxylate	551.7
353	tert-butyl 2-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]-1H-pyrrole-1-carboxylate	551.7
354	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-pyridin-2-ylquinolin-2(1H)-one	463.6
355	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-thien-2-ylquinolin-2(1H)-one	468.6
356	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2,4-difluorophenyl)quinolin-2(1H)-one	498.5
357	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-thien-3-ylquinolin-2(1H)-one	468.6
358	4-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzonitrile	487.6
359	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2-chlorophenyl)quinolin-2(1H)-one	497.0
360	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-[2-(trifluoromethyl)phenyl]quinolin-2(1H)-one	530.6
361	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(3-methoxyphenyl)quinolin-2(1H)-one	492.6
362	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-pyridin-3-ylquinolin-2(1H)-one	463.6
363	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-pyridin-4-ylquinolin-2(1H)-one	463.6
364	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinoline-6-carboxylic acid	430.5

365	3-(5-hydroxy-1H-benzimidazol-2-yl)-4-(piperidin-3-ylamino)quinolin-2(1H)-one	376.4
366	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-8-methylquinolin-2(1H)-one	400.5
367	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2-chlorophenyl)quinolin-2(1H)-one	497.0
368	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-[2-(trifluoromethyl)phenyl]quinolin-2(1H)-one	530.6
369	4-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzonitrile	487.6
370	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-thien-3-ylquinolin-2(1H)-one	468.6
371	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-pyridin-4-ylquinolin-2(1H)-one	463.6
372	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2-methoxyphenyl)quinolin-2(1H)-one	492.6
373	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2-methylphenyl)quinolin-2(1H)-one	476.6
374	6-(3-acetylphenyl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)quinolin-2(1H)-one	504.6
375	6-(4-acetylphenyl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)quinolin-2(1H)-one	504.6
376	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	506.6
377	N-{3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]phenyl}acetamide	519.6
378	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2,6-difluorophenyl)quinolin-2(1H)-one	498.5
379	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(1,3-benzodioxol-5-yl)quinolin-2(1H)-one	506.6
380	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(4-chlorophenyl)quinolin-2(1H)-one	497.0
381	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzaldehyde	490.6
382	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-[4-(methylthio)phenyl]quinolin-2(1H)-one	508.7
383	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-[4-(dimethylamino)phenyl]quinolin-2(1H)-one	505.6
384	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(4-chloro-2-fluorophenyl)quinolin-2(1H)-one	515.0
385	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2,4-dichlorophenyl)quinolin-2(1H)-one	531.5
386	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-phenylquinolin-2(1H)-one	462.6
387	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(1-ethylpiperidin-3-yl)amino]quinolin-2(1H)-one	422.9
388	1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-4-carboxamide	530.6

389	ethyl 1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-4-carboxylate	559.7
390	1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-3-carboxamide	530.6
391	ethyl 1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-3-carboxylate	559.7
392	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(1H-imidazol-1-yl)quinolin-2(1H)-one	470.5
393	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-{[2-(dimethylamino)ethyl]amino}-6-fluoroquinolin-2(1H)-one	490.6
394	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-morpholin-4-ylquinolin-2(1H)-one	489.6
395	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(dimethylamino)-6-fluoroquinolin-2(1H)-one	447.5
396	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-bromoquinolin-2(1H)-one	465.4
397	1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-4-carboxylic acid	531.6
398	1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-3-carboxylic acid	531.6
399	methyl 4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	520.6
400	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloro-2-oxo-1,2-dihydroquinolin-6-yl]benzamide	505.6
401	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-[4-(methylsulfonyl)phenyl]quinolin-2(1H)-one	540.7
402	methyl 3-amino-4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	535.6
403	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloro-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	541.0
404	N-{3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloro-2-oxo-1,2-dihydroquinolin-6-yl]phenyl}acetamide	554.1
405	6-(3-acetylphenyl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloroquinolin-2(1H)-one	539.0
406	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloro-6-(2-methoxyphenyl)quinolin-2(1H)-one	527.0
407	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloro-6-(2,4-dichlorophenyl)quinolin-2(1H)-one	565.9
408	6-(4-acetylphenyl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloroquinolin-2(1H)-one	539.0

409	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloro-2-oxo-1,2-dihydroquinolin-6-yl]benzamide	540.0
410	methyl 4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloro-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	555.0
411	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-[[2-(dimethylamino)ethyl](methyl)amino]-6-fluoroquinolin-2(1H)-one	504.6
412	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(3-methoxypropyl)amino]quinolin-2(1H)-one	491.6
413	N-{(3R)-1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]pyrrolidin-3-yl}acetamide	530.6
414	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-{[3-(2-oxopyrrolidin-1-yl)propyl]amino}quinolin-2(1H)-one	544.6
415	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-7-azepan-1-yl-3-(1H-benzimidazol-2-yl)-6-fluoroquinolin-2(1H)-one	501.6
416	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(1H-pyrrol-1-yl)quinolin-2(1H)-one	469.5
417	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(2-methyl-1H-imidazol-1-yl)quinolin-2(1H)-one	484.5
418	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-pyrrolidin-1-ylquinolin-2(1H)-one	473.6
419	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-piperidin-1-ylquinolin-2(1H)-one	487.6
420	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(4-methylpiperazin-1-yl)quinolin-2(1H)-one	502.6
421	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(3-hydroxypropyl)amino]quinolin-2(1H)-one	477.6
422	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-chloro-7-morpholin-4-ylquinolin-2(1H)-one	506.0
423	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-chloro-7-(4-methylpiperazin-1-yl)quinolin-2(1H)-one	519.1
424	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-chloro-7-piperidin-1-ylquinolin-2(1H)-one	504.0
425	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]benzoic acid	506.6
426	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(2,4-dichlorophenyl)quinolin-2(1H)-one	531.5
427	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(dimethylamino)quinolin-2(1H)-one	429.5
428	7-(4-acetylphenyl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)quinolin-2(1H)-one	504.6
429	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(2-methylphenyl)quinolin-2(1H)-one	476.6
430	7-(3-acetylphenyl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)quinolin-2(1H)-one	504.6
431	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(2-methoxyphenyl)quinolin-2(1H)-one	492.6

432	3-(1H-benzimidazol-2-yl)-6,7-difluoro-4-[(piperidin-2-ylmethyl)amino]quinolin-2(1H)-one	410.4
433	N-[3-(1H-benzimidazol-2-yl)-6,7-difluoro-2-oxo-1,2-dihydroquinolin-4-yl]glycine	371.3
434	N-[3-(1H-benzimidazol-2-yl)-6,7-difluoro-2-oxo-1,2-dihydroquinolin-4-yl]-beta-alanine	385.3
435	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(6-fluoro-1H-benzimidazol-2-yl)-6,7-dimethoxyquinolin-2(1H)-one	464.5
436	3-(6-fluoro-1H-benzimidazol-2-yl)-6,7-dimethoxy-4-(piperidin-3-ylamino)quinolin-2(1H)-one	438.5
437	3-(6-fluoro-1H-benzimidazol-2-yl)-6,7-dimethoxy-4-(pyrrolidin-3-ylamino)quinolin-2(1H)-one	424.4
438	4-[(4-aminocyclohexyl)amino]-3-(6-fluoro-1H-benzimidazol-2-yl)-6,7-dimethoxyquinolin-2(1H)-one	452.5
439	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(6-fluoro-1H-benzimidazol-2-yl)-6,7-dimethoxyquinolin-2(1H)-one	464.5
440	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-[ethyl(methyl)amino]-6-fluoroquinolin-2(1H)-one	461.6
441	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(diethylamino)-6-fluoroquinolin-2(1H)-one	475.6
442	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-[(3R)-3-(dimethylamino)pyrrolidin-1-yl]-6-fluoroquinolin-2(1H)-one	516.6
443	7-(3-acetyl-1H-pyrrol-1-yl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoroquinolin-2(1H)-one	511.6
444	ethyl 4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	534.6
445	methyl 3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	520.6
446	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-{[2-(diethylamino)ethyl]amino}-6-fluoroquinolin-2(1H)-one	518.6
447	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(2-pyrrolidin-1-ylethyl)amino]quinolin-2(1H)-one	516.6
448	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(2-piperidin-1-ylethyl)amino]quinolin-2(1H)-one	530.7
449	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-{[3-(dimethylamino)propyl]amino}-6-fluoroquinolin-2(1H)-one	504.6
450	N-(2-{[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]amino}ethyl)acetamide	504.6
451	N-{1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]pyrrolidin-3-yl}-2,2,2-trifluoroacetamide	584.6
452	3-{[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]amino}propanenitrile	472.5

453	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(2-hydroxyethyl)amino]quinolin-2(1H)-one	463.5
454	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(2-methoxyethyl)amino]quinolin-2(1H)-one	477.6
455	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(3-hydroxypiperidin-1-yl)quinolin-2(1H)-one	503.6
456	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-[[2-(dimethylamino)ethyl](methyl)amino]-6-fluoroquinolin-2(1H)-one	504.6
457	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-{[3-(dimethylamino)propyl]amino}-6-fluoroquinolin-2(1H)-one	504.6
458	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-{[2-(diethylamino)ethyl]amino}-6-fluoroquinolin-2(1H)-one	518.6
459	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(2-pyrrolidin-1-ylethyl)amino]quinolin-2(1H)-one	516.6
460	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(3-hydroxypiperidin-1-yl)quinolin-2(1H)-one	530.7
461	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-{[3-(2-oxopyrrolidin-1-yl)propyl]amino}quinolin-2(1H)-one	544.6
462	N-(2-{[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]amino}ethyl)acetamide	504.6
463	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(3-methoxypropyl)amino]quinolin-2(1H)-one	491.6
464	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(2-methoxyethyl)amino]quinolin-2(1H)-one	477.6
465	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(2-hydroxyethyl)amino]quinolin-2(1H)-one	463.5
466	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-[ethyl(methyl)amino]-6-fluoroquinolin-2(1H)-one	461.6
467	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(diethylamino)-6-fluoroquinolin-2(1H)-one	475.6
468	N-{(3R)-1-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]pyrrolidin-3-yl}acetamide	530.6
469	N-{(3S)-1-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]pyrrolidin-3-yl}acetamide	530.6
470	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-[(3R)-3-(dimethylamino)pyrrolidin-1-yl]-6-fluoroquinolin-2(1H)-one	516.6
471	N-{1-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]pyrrolidin-3-yl}-2,2,2-trifluoroacetamide	584.6
472	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-7-azepan-1-yl-3-(1H-benzimidazol-2-yl)-6-fluoroquinolin-2(1H)-one	501.6

473	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(3-hydroxypiperidin-1-yl)quinolin-2(1H)-one	503.6
474	3-{[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]amino}propanenitrile	472.5
475	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(1H-pyrrol-1-yl)quinolin-2(1H)-one	469.5
476	7-(3-acetyl-1H-pyrrol-1-yl)-4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoroquinolin-2(1H)-one	511.6
477	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(2-methyl-1H-imidazol-1-yl)quinolin-2(1H)-one	484.5
478	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-[(3S)-3-(dimethylamino)pyrrolidin-1-yl]-6-fluoroquinolin-2(1H)-one	516.6
479	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-methoxyquinolin-2(1H)-one	434.5
480	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-[(3S)-3-(dimethylamino)pyrrolidin-1-yl]-6-fluoroquinolin-2(1H)-one	516.6
481	N-{(3S)-1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]pyrrolidin-3-yl}acetamide	530.6
482	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(2-pyridin-2-ylethyl)amino]quinolin-2(1H)-one	524.6
483	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(isobutylamino)quinolin-2(1H)-one	475.6
484	methyl 3-amino-4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloro-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	570.1
485	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloro-6-[4-(methylsulfonyl)phenyl]quinolin-2(1H)-one	575.1
486	methyl 3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloro-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	555.0
487	1-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-4-carboxylic acid	531.6
488	1-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-3-carboxylic acid	531.6
489	4-[(4-aminobenzyl)amino]-3-(1H-benzimidazol-2-yl)-6,7-dimethoxyquinolin-2(1H)-one	442.5
490	4-(2-{[3-(1H-benzimidazol-2-yl)-6,7-dimethoxy-2-oxo-1,2-dihydroquinolin-4-yl]amino}ethyl)benzenesulfonamide	520.6
491	4-[(3-aminopropyl)amino]-3-(1H-benzimidazol-2-yl)-6,7-dimethoxyquinolin-2(1H)-one	394.4
492	4-[(2-aminoethyl)amino]-3-(1H-benzimidazol-2-yl)-6,7-dimethoxyquinolin-2(1H)-one	380.4
493	3-(1H-benzimidazol-2-yl)-4-{[2-(1H-imidazol-5-yl)ethyl]amino}-6,7-dimethoxyquinolin-2(1H)-one	431.5

494	3-(1H-benzimidazol-2-yl)-4-{[2-(1H-benzimidazol-2-yl)ethyl]amino}-6,7-dimethoxyquinolin-2(1H)-one	481.5
495	4-{[(4-amino-2-methylpyrimidin-5-yl)methyl]amino}-3-(1H-benzimidazol-2-yl)-6,7-dimethoxyquinolin-2(1H)-one	458.5
496	3-(1H-benzimidazol-2-yl)-4-{[2-(5-fluoro-1H-indol-3-yl)ethyl]amino}-6,7-dimethoxyquinolin-2(1H)-one	498.5
497	4-{[2-(4-aminophenyl)ethyl]amino}-3-(1H-benzimidazol-2-yl)-6,7-dimethoxyquinolin-2(1H)-one	456.5
498	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-morpholin-4-ylquinolin-2(1H)-one	471.6
499	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(5,6-difluoro-1H-benzimidazol-2-yl)-6,7-dimethoxyquinolin-2(1H)-one	430.5
500	methyl 3-amino-4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]benzoate	535.6
501	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-[4-(methylsulfonyl)phenyl]quinolin-2(1H)-one	540.7
502	methyl 4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]benzoate	520.6
503	methyl 3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]benzoate	520.6
504	N-{3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]phenyl}acetamide	519.6
505	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(5,6-difluoro-1H-benzimidazol-2-yl)-6,7-dimethoxyquinolin-2(1H)-one	482.5
506	3-(5,6-difluoro-1H-benzimidazol-2-yl)-6,7-dimethoxy-4-(piperidin-3-ylamino)quinolin-2(1H)-one	456.5
507	4-[(4-aminocyclohexyl)amino]-3-(5,6-difluoro-1H-benzimidazol-2-yl)-6,7-dimethoxyquinolin-2(1H)-one	470.5
508	3-(5,6-difluoro-1H-benzimidazol-2-yl)-6,7-dimethoxy-4-(pyrrolidin-3-ylamino)quinolin-2(1H)-one	442.4
509	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-chloro-7-(1H-imidazol-1-yl)quinolin-2(1H)-one	487.0
510	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-[(3-hydroxypropyl)amino]quinolin-2(1H)-one	459.6
511	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-{[3-(2-oxopyrrolidin-1-yl)propyl]amino}quinolin-2(1H)-one	526.7
512	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(4-methylpiperazin-1-yl)quinolin-2(1H)-one	484.6
513	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]benzonitrile	487.6
514	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-[2-(trifluoromethyl)phenyl]quinolin-2(1H)-one	530.6
515	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(1,3-benzodioxol-5-yl)quinolin-2(1H)-one	506.6
516	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(morpholin-4-ylcarbonyl)quinolin-2(1H)-one	499.6
517	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-N,N-dimethyl-2-oxo-1,2-dihydroquinoline-7-carboxamide	457.5

518	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinoline-7-carboxamide	429.5
519	3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]benzoic acid	506.6
520	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-bromoquinolin-2(1H)-one	465.4
521	4-{4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-[4-(ethoxycarbonyl)piperidin-1-yl]-2-oxo-1,2-dihydroquinolin-6-yl}benzoic acid	661.8
522	4-[7-(3-acetyl-1H-pyrrol-1-yl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	613.7
523	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(dimethylamino)-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	549.6
524	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(1H-imidazol-1-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	572.6
525	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-6-iodoquinolin-2(1H)-one	530.4
526	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-6-[4-(methylsulfonyl)phenyl]quinolin-2(1H)-one	558.6
527	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]benzamide	523.6
528	6-(4-acetylphenyl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoroquinolin-2(1H)-one	522.6
529	methyl 4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	538.6
530	methyl 3-amino-4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	553.6
531	6-(3-acetylphenyl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoroquinolin-2(1H)-one	522.6
532	methyl 3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	538.6
533	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-6-(2-methylphenyl)quinolin-2(1H)-one	494.6
534	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-6-(2-methoxyphenyl)quinolin-2(1H)-one	510.6
535	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2,4-dichlorophenyl)-7-fluoroquinolin-2(1H)-one	549.4
536	ethyl 1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-iodo-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-4-carboxylate	667.6
537	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(1H-imidazol-1-yl)-6-iodoquinolin-2(1H)-one	578.4
538	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2-ethylphenyl)-7-(1H-imidazol-1-yl)quinolin-2(1H)-one	556.7

539	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(1H-imidazol-1-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzamide	571.7
540	6-(4-acetylphenyl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(1H-imidazol-1-yl)quinolin-2(1H)-one	570.7
541	6-(3-acetylphenyl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(1H-imidazol-1-yl)quinolin-2(1H)-one	587.7
542	N-{3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(1H-imidazol-1-yl)-2-oxo-1,2-dihydroquinolin-6-yl]phenyl}acetamide	585.7
543	6-(3-acetylphenyl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(1H-imidazol-1-yl)quinolin-2(1H)-one	570.7
544	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(1H-imidazol-1-yl)-6-(2-methylphenyl)quinolin-2(1H)-one	542.7
545	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(1H-imidazol-1-yl)-6-(2-methoxyphenyl)quinolin-2(1H)-one	558.7
546	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2,4-dichlorophenyl)-7-(1H-imidazol-1-yl)quinolin-2(1H)-one	597.5
547	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2-ethylphenyl)quinolin-2(1H)-one	490.6
548	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2-ethylphenyl)-7-fluoroquinolin-2(1H)-one	508.6
549	3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	506.6
550	3-amino-4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloro-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	556.0
551	3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloro-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	541.0
552	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(pyridin-2-ylmethyl)amino]quinolin-2(1H)-one	510.6
553	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(3-pyrrolidin-1-ylpropyl)amino]quinolin-2(1H)-one	527.6
554	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(pyridin-3-ylmethyl)amino]quinolin-2(1H)-one	510.6
555	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(3-pyrrolidin-1-ylpropyl)amino]quinolin-2(1H)-one	530.7
556	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(3R)-3-hydroxypyrrolidin-1-yl]quinolin-2(1H)-one	489.6
557	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-{[2-(1-methylpyrrolidin-2-yl)ethyl]amino}quinolin-2(1H)-one	530.7
558	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(pyridin-4-ylmethyl)amino]quinolin-2(1H)-one	510.6

559	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[3-(methylsulfonyl)pyrrolidin-1-yl]quinolin-2(1H)-one	551.7
560	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(3-pyridin-4-ylpyrrolidin-1-yl)quinolin-2(1H)-one	550.7
561	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(2-morpholin-4-ylethyl)amino]quinolin-2(1H)-one	532.6
562	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[4-(pyridin-4-ylmethyl)piperazin-1-yl]quinolin-2(1H)-one	579.7
563	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(benzylamino)-6-fluoroquinolin-2(1H)-one	509.6
564	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(2-pyridin-3-ylpyrrolidin-1-yl)quinolin-2(1H)-one	550.7
565	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(2-pyridin-4-ylethyl)amino]quinolin-2(1H)-one	524.6
566	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(3-morpholin-4-ylpropyl)amino]quinolin-2(1H)-one	546.7
567	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(4-hydroxycyclohexyl)amino]quinolin-2(1H)-one	524.6
568	7-{[2-(4-aminophenyl)ethyl]amino}-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoroquinolin-2(1H)-one	538.6
569	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(4-hydroxycyclohexyl)amino]quinolin-2(1H)-one	517.6
570	4-(1-azabicyclo[2.2.2]oct-3-ylamino)-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(piperidin-3-ylmethyl)amino]quinolin-2(1H)-one	516.6
571	4-(1-azabicyclo[2.2.2]oct-3-ylamino)-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(pyrrolidin-3-ylamino)quinolin-2(1H)-one	488.6
572	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(2-methyl-1H-imidazol-1-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	586.7
573	1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-chloro-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-4-carboxamide	547.1
574	ethyl 1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-chloro-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-4-carboxylate	576.1
575	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(1H-imidazol-1-yl)quinolin-2(1H)-one	452.5
576	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(2-methyl-1H-imidazol-1-yl)quinolin-2(1H)-one	466.6
577	ethyl 1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-4-carboxylate	541.7

578	1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-4-carboxamide	512.6
579	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(2-mercaptoethyl)amino]quinolin-2(1H)-one	479.6
580	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[4-(pyridin-3-ylmethyl)piperazin-1-yl]quinolin-2(1H)-one	579.7
581	3-(1H-benzimidazol-2-yl)-4-[(2-hydroxyethyl)amino]-6,7-dimethoxyquinolin-2(1H)-one	381.4
582	3-(1H-benzimidazol-2-yl)-4-[(3-hydroxypropyl)amino]-6,7-dimethoxyquinolin-2(1H)-one	395.4
583	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-{[(1-hydroxycyclohexyl)methyl]amino}quinolin-2(1H)-one	531.6
584	3-(1H-benzimidazol-2-yl)-6,7-dimethoxy-4-[(3-pyrrolidin-1-ylpropyl)amino]quinolin-2(1H)-one	448.5
585	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinoline-7-carbonitrile	411.5
586	3-(1H-benzimidazol-2-yl)-6-chloro-4-(pyridin-3-ylamino)quinolin-2(1H)-one	388.8
587	3-(1H-benzimidazol-2-yl)-4-[(1-benzylpiperidin-4-yl)amino]-6-chloroquinolin-2(1H)-one	485.0
588	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-methoxyquinolin-2(1H)-one	416.5
589	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-bromo-7-methoxyquinolin-2(1H)-one	495.4
590	3-(1H-benzimidazol-2-yl)-6,7-dimethoxy-4-{[(5-methylpyrazin-2-yl)methyl]amino}quinolin-2(1H)-one	443.5
591	4-[(3-amino-2-hydroxypropyl)amino]-3-(1H-benzimidazol-2-yl)-6,7-dimethoxyquinolin-2(1H)-one	410.4
592	3-(1H-benzimidazol-2-yl)-6,7-dimethoxy-4-[(2-methoxyethyl)amino]quinolin-2(1H)-one	395.4
593	{[3-(1H-benzimidazol-2-yl)-6,7-dimethoxy-2-oxo-1,2-dihydroquinolin-4-yl]amino}acetonitrile	376.4
594	3-(1H-benzimidazol-2-yl)-4-{[2-(2-hydroxyethoxy)ethyl]amino}-6,7-dimethoxyquinolin-2(1H)-one	425.5
595	3-(1H-benzimidazol-2-yl)-4-[(3R)-3-hydroxypyrrolidin-1-yl]-6,7-dimethoxyquinolin-2(1H)-one	407.4
596	4-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]benzonitrile	487.6
597	4-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]benzoic acid	506.6
598	4-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]benzamide	505.6
599	methyl 3-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]benzoate	520.6
600	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-({[6-(piperidin-3-yloxy)pyridin-3-yl]methyl}amino)quinolin-2(1H)-one	587.1

601	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-{[3-(2-oxopyrrolidin-1-yl)propyl]amino}quinolin-2(1H)-one	488.0
602	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(2-pyridin-2-ylethyl)amino]quinolin-2(1H)-one	502.0
603	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-{[3-(2-oxopyrrolidin-1-yl)propyl]amino}quinolin-2(1H)-one	522.0
604	6-chloro-4-[(6-methoxypyridin-3-yl)amino]-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	504.0
605	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(3-pyridin-2-ylpropyl)amino]quinolin-2(1H)-one	516.0
606	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-(pyridin-4-ylamino)quinolin-2(1H)-one	473.9
607	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-({[6-(piperidin-3-ylmethoxy)pyridin-3-yl]methyl}amino)quinolin-2(1H)-one	601.1
608	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-(pyridin-2-ylamino)quinolin-2(1H)-one	473.9
609	1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-chloro-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-4-carboxylic acid	548.1
610	1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]piperidine-4-carboxylic acid	513.6
611	3-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-7-yl]benzoic acid	506.6
612	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-({[2-(piperidin-4-yloxy)pyridin-3-yl]methyl}amino)quinolin-2(1H)-one	430.5
613	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6,7-dichloroquinolin-2(1H)-one	455.4
614	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-({[2-(piperidin-4-yloxy)pyridin-3-yl]methyl}amino)quinolin-2(1H)-one	587.1
615	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-(pyrazin-2-ylamino)quinolin-2(1H)-one	474.9
616	4-amino-3-(6-thiomorpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	378.5
617	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(3-pyridin-3-ylpyrrolidin-1-yl)quinolin-2(1H)-one	550.7
618	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-fluoro-6-[4-(methylsulfonyl)phenyl]quinolin-2(1H)-one	558.6
619	6-(4-acetylphenyl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-fluoroquinolin-2(1H)-one	522.6
620	methyl 4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	538.6
621	methyl 3-amino-4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	553.6

622	methyl 3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	538.6
623	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-fluoro-6-(2-methylphenyl)quinolin-2(1H)-one	494.6
624	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2-ethylphenyl)-5-fluoroquinolin-2(1H)-one	508.6
625	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-fluoro-6-(2-methoxyphenyl)quinolin-2(1H)-one	510.6
626	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2,4-dichlorophenyl)-5-fluoroquinolin-2(1H)-one	549.4
627	4-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	524.6
628	4-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]benzamide	523.6
629	N-{3-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]phenyl}acetamide	537.6
630	3-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	524.6
631	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-6-(2-methylphenyl)quinolin-2(1H)-one	494.6
632	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(2-methyl-1H-imidazol-1-yl)-6-[4-(methylsulfonyl)phenyl]quinolin-2(1H)-one	620.7
633	N-{3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(2-methyl-1H-imidazol-1-yl)-2-oxo-1,2-dihydroquinolin-6-yl]phenyl}acetamide	599.7
634	N-{3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-7-piperidin-1-yl-1,2-dihydroquinolin-6-yl]phenyl}acetamide	602.8
635	N-{3-[7-(3-acetyl-1H-pyrrol-1-yl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-6-yl]phenyl}acetamide	626.7
636	N-{3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(dimethylamino)-2-oxo-1,2-dihydroquinolin-6-yl]phenyl}acetamide	562.7
637	N-{3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(2-ethyl-1H-imidazol-1-yl)-2-oxo-1,2-dihydroquinolin-6-yl]phenyl}acetamide	613.7
638	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(2-ethyl-1H-imidazol-1-yl)-6-fluoroquinolin-2(1H)-one	498.6
639	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(2-isopropyl-1H-imidazol-1-yl)quinolin-2(1H)-one	512.6
640	1-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-2-oxo-1,2-dihydroquinolin-7-yl]-1H-pyrrole-3-carboxylic acid	513.5

641	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-chloro-6-iodoquinolin-2(1H)-one	546.8
642	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-fluoro-6-iodoquinolin-2(1H)-one	530.4
643	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-6-iodoquinolin-2(1H)-one	530.4
644	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(2-pyridin-3-ylethyl)amino]quinolin-2(1H)-one	502.0
645	4-{[4-(aminomethyl)benzyl]amino}-3-(1H-benzimidazol-2-yl)-7-chloroquinolin-2(1H)-one	430.9
646	3-(1H-benzimidazol-2-yl)-7-chloro-4-{[2-(dimethylamino)ethyl]amino}quinolin-2(1H)-one	382.9
647	3-(1H-benzimidazol-2-yl)-4-(1,4'-bipiperidin-1'-yl)-7-chloroquinolin-2(1H)-one	463.0
648	3-(1H-benzimidazol-2-yl)-7-chloro-4-{[3-(4-methylpiperazin-1-yl)propyl]amino}quinolin-2(1H)-one	452.0
649	3-(1H-benzimidazol-2-yl)-7-chloro-4-[(2-piperidin-1-ylethyl)amino]quinolin-2(1H)-one	422.9
650	3-(1H-benzimidazol-2-yl)-7-chloro-4-{[3-(1H-imidazol-1-yl)propyl]amino}quinolin-2(1H)-one	419.9
651	3-(1H-benzimidazol-2-yl)-7-chloro-4-(pyridin-3-ylamino)quinolin-2(1H)-one	388.8
652	3-(1H-benzimidazol-2-yl)-7-chloro-4-(pyridin-4-ylamino)quinolin-2(1H)-one	388.8
653	3-(1H-benzimidazol-2-yl)-7-chloro-4-({[6-(piperidin-3-yloxy)pyridin-3-yl]methyl}amino)quinolin-2(1H)-one	502.0
654	3-(1H-benzimidazol-2-yl)-7-chloro-4-{[3-(2-oxopyrrolidin-1-yl)propyl]amino}quinolin-2(1H)-one	436.9
655	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-methoxy-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	536.6
656	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-methoxy-2-oxo-1,2-dihydroquinolin-6-yl]benzamide	535.6
657	6-(4-acetylphenyl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-methoxyquinolin-2(1H)-one	534.6
658	methyl 4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-methoxy-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	550.6
659	methyl 3-amino-4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-methoxy-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	565.6
660	N-{3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-methoxy-2-oxo-1,2-dihydroquinolin-6-yl]phenyl}acetamide	549.6
661	6-(3-acetylphenyl)-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-methoxyquinolin-2(1H)-one	534.6
662	methyl 3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-methoxy-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	550.6

663	3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-methoxy-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	536.6
664	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-methoxy-6-(2-methylphenyl)quinolin-2(1H)-one	506.6
665	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2-ethylphenyl)-7-methoxyquinolin-2(1H)-one	520.6
666	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-methoxy-6-(2-methoxyphenyl)quinolin-2(1H)-one	522.6
667	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2,4-dichlorophenyl)-7-methoxyquinolin-2(1H)-one	561.5
668	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-[2-(dimethylamino)ethoxy]-6-fluoroquinolin-2(1H)-one	491.6
669	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(2S)-pyrrolidin-2-ylmethoxy]quinolin-2(1H)-one	503.6
670	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[2-(2-oxopyrrolidin-1-yl)ethoxy]quinolin-2(1H)-one	531.6
671	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-{[(2S)-1-(4-nitrophenyl)pyrrolidin-2-yl]methoxy}quinolin-2(1H)-one	624.7
672	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(1-methylpiperidin-2-yl)methoxy]quinolin-2(1H)-one	531.6
673	3-(1H-benzimidazol-2-yl)-6,7-dimethoxy-4-{[2-(1-methylpyrrolidin-2-yl)ethyl]amino}quinolin-2(1H)-one	448.5
674	3-(1H-benzimidazol-2-yl)-6,7-dimethoxy-4-{[2-(methylsulfonyl)ethyl]amino}quinolin-2(1H)-one	443.5
675	3-(1H-benzimidazol-2-yl)-6,7-dimethoxy-4-[(2-morpholin-4-yl-2-pyridin-3-ylethyl)amino]quinolin-2(1H)-one	527.6
676	7-[(2-aminoethyl)amino]-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoroquinolin-2(1H)-one	462.5
677	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(3-phenylthiomorpholin-4-yl)quinolin-2(1H)-one	581.7
678	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-(2-phenylthiomorpholin-4-yl)quinolin-2(1H)-one	581.7
679	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-{[2-(phenylsulfonyl)ethyl]amino}quinolin-2(1H)-one	587.7
680	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-{[2-(methylsulfonyl)ethyl]amino}quinolin-2(1H)-one	525.6
681	7-{[(2R)-2-aminopropyl]amino}-4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoroquinolin-2(1H)-one	476.6
682	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-fluoro-7-[(2-morpholin-4-yl-2-pyridin-3-ylethyl)amino]quinolin-2(1H)-one	609.7

683	3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-fluoro-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	524.6
684	4-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(1H-imidazol-1-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	572.6
685	4-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(2-methyl-1H-imidazol-1-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	586.7
686	4-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-7-piperidin-1-yl-1,2-dihydroquinolin-6-yl]benzoic acid	589.7
687	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(2-ethyl-1H-imidazol-1-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	600.7
688	3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(2-methyl-1H-imidazol-1-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	586.7
689	3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-7-piperidin-1-yl-1,2-dihydroquinolin-6-yl]benzoic acid	589.7
690	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-[(piperidin-3-ylmethyl)amino]quinolin-2(1H)-one	507.1
691	3-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(1H-imidazol-1-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	572.6
692	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-[(piperidin-4-ylmethyl)amino]quinolin-2(1H)-one	507.1
693	3-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-7-(2-methyl-1H-imidazol-1-yl)-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	586.7
694	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-[(pyrrolidin-2-ylmethyl)amino]quinolin-2(1H)-one	493.0
695	3-[4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-2-oxo-7-piperidin-1-yl-1,2-dihydroquinolin-6-yl]benzoic acid	589.7
696	4-{[(2R)-2-aminobutyl]amino}-6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	481.0
697	4-{[(2S)-2-amino-3-methylbutyl]amino}-6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	495.0
698	4-{[(1S)-2-amino-1-benzylethyl]amino}-6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	543.1
699	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	519.1
700	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-(piperidin-3-ylamino)quinolin-2(1H)-one	493.0
701	6-chloro-4-{[2-(dimethylamino)ethyl]amino}-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	481.0
702	7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-(piperidin-4-ylamino)quinolin-2(1H)-one	480.0

703	4-{[(1R,2R)-2-aminocyclohexyl]amino}-3-(1H-benzimidazol-2-yl)-7-chloroquinolin-2(1H)-one	408.9
704	3-(1H-benzimidazol-2-yl)-7-chloro-4-[(3-morpholin-4-ylpropyl)amino]quinolin-2(1H)-one	438.9
705	3-(1H-benzimidazol-2-yl)-7-chloro-4-[(pyridin-3-ylmethyl)amino]quinolin-2(1H)-one	402.9
706	3-(1H-benzimidazol-2-yl)-7-chloro-4-[(2-pyridin-3-ylethyl)amino]quinolin-2(1H)-one	416.9
707	4-{[(1R,2R)-2-aminocyclohexyl]amino}-7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	494.0
708	4-[(4-aminocyclohexyl)amino]-7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	494.0
709	7-chloro-4-{[2-(methylamino)ethyl]amino}-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	453.9
710	7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(pyrrolidin-2-ylmethyl)amino]quinolin-2(1H)-one	480.0
711	4-{[(1S)-2-amino-1-benzylethyl]amino}-7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	530.0
712	7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-(pyrrolidin-3-ylamino)quinolin-2(1H)-one	466.0
713	3-(1H-benzimidazol-2-yl)-7-chloro-4-[(2-pyrrolidin-1-ylethyl)amino]quinolin-2(1H)-one	408.9
714	3-(1H-benzimidazol-2-yl)-7-chloro-4-[(2-piperidin-2-ylethyl)amino]quinolin-2(1H)-one	422.9
715	3-(1H-benzimidazol-2-yl)-7-chloro-4-[(piperidin-3-ylmethyl)amino]quinolin-2(1H)-one	408.9
716	3-(1H-benzimidazol-2-yl)-7-chloro-4-[(piperidin-4-ylmethyl)amino]quinolin-2(1H)-one	408.9
717	3-(1H-benzimidazol-2-yl)-7-chloro-4-{[(2-methyl-1-piperidin-4-yl-1H-benzimidazol-5-yl)methyl]amino}quinolin-2(1H)-one	539.1
718	4-[(4-aminocyclohexyl)amino]-3-(1H-benzimidazol-2-yl)-7-chloroquinolin-2(1H)-one	408.9
719	3-(1H-benzimidazol-2-yl)-7-chloro-4-(pyrrolidin-3-ylamino)quinolin-2(1H)-one	380.8
720	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-[4-(trifluoromethyl)phenyl]quinolin-2(1H)-one	530.6
721	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-[3-(trifluoromethyl)phenyl]quinolin-2(1H)-one	530.6
722	4-amino-5-fluoro-3-[6-(4-isopropylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	421.5
723	7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-{[(2S)-pyrrolidin-2-ylmethyl]amino}quinolin-2(1H)-one	480.0
724	7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-{[(2R)-pyrrolidin-2-ylmethyl]amino}quinolin-2(1H)-one	480.0
725	7-chloro-4-({[(2S)-1-ethylpyrrolidin-2-yl]methyl}amino)-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	508.0
726	7-chloro-4-({[(2R)-1-ethylpyrrolidin-2-yl]methyl}amino)-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	508.0
727	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	506.0

728	7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(piperidin-3-ylmethyl)amino]quinolin-2(1H)-one	494.0
729	7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(piperidin-4-ylmethyl)amino]quinolin-2(1H)-one	494.0
730	4-{[(2S)-2-amino-3-methylbutyl]amino}-7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	482.0
731	4-{[4-(aminomethyl)benzyl]amino}-7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	516.0
732	4-{[(1R)-1-(aminomethyl)propyl]amino}-7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	468.0
733	7-chloro-4-{[3-(4-methylpiperazin-1-yl)propyl]amino}-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	537.1
734	7-chloro-4-{[3-(1H-imidazol-1-yl)propyl]amino}-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	505.0
735	7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(2-pyrrolidin-1-ylethyl)amino]quinolin-2(1H)-one	494.0
736	7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(piperidin-2-ylmethyl)amino]quinolin-2(1H)-one	494.0
737	7-chloro-4-{[2-(dimethylamino)ethyl]amino}-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	468.0
738	7-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(3S)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	466.0
739	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(4-hydroxyphenyl)quinolin-2(1H)-one	478.6
740	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(3-hydroxyphenyl)quinolin-2(1H)-one	478.6
741	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(2-hydroxyphenyl)quinolin-2(1H)-one	478.6
742	3-(1H-benzimidazol-2-yl)-7-chloro-4-{[(2S)-pyrrolidin-2-ylmethyl]amino}quinolin-2(1H)-one	394.9
743	3-(1H-benzimidazol-2-yl)-7-chloro-4-({[(2S)-1-ethylpyrrolidin-2-yl]methyl}amino)quinolin-2(1H)-one	422.9
744	3-(1H-benzimidazol-2-yl)-7-chloro-4-({[(2R)-1-ethylpyrrolidin-2-yl]methyl}amino)quinolin-2(1H)-one	422.9
745	3-(1H-benzimidazol-2-yl)-7-chloro-4-[(3S)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	380.8
746	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[(2S)-pyrrolidin-2-ylmethyl]amino}quinolin-2(1H)-one	394.9
747	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[(2R)-pyrrolidin-2-ylmethyl]amino}quinolin-2(1H)-one	394.9
748	3-(1H-benzimidazol-2-yl)-6-chloro-4-({[(2S)-1-ethylpyrrolidin-2-yl]methyl}amino)quinolin-2(1H)-one	422.9
749	3-(1H-benzimidazol-2-yl)-6-chloro-4-({[(2R)-1-ethylpyrrolidin-2-yl]methyl}amino)quinolin-2(1H)-one	422.9
750	4-amino-3-[5-(1,4'-bipiperidin-1'-ylcarbonyl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	380.8
751	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-7-bromo-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	550.5
752	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-7-bromo-3-(6-methoxy-1H-benzimidazol-2-yl)quinolin-2(1H)-one	495.4

753	3-{[3-(1H-benzimidazol-2-yl)-6,7-dimethoxy-2-oxo-1,2-dihydroquinolin-4-yl]amino}bicyclo[2.2.1]heptane-2-carboxamide	474.5
754	4-[(3-amino-2,2-dimethylpropyl)amino]-3-(1H-benzimidazol-2-yl)-6,7-dimethoxyquinolin-2(1H)-one	422.5
755	3-(1H-benzimidazol-2-yl)-4-{[3-(dimethylamino)-2,2-dimethylpropyl]amino}-6,7-dimethoxyquinolin-2(1H)-one	450.6
756	3-(1H-benzimidazol-2-yl)-7-chloro-4-[(pyridin-2-ylmethyl)amino]quinolin-2(1H)-one	402.9
757	3-(1H-benzimidazol-2-yl)-7-chloro-4-[(2-pyridin-2-ylethyl)amino]quinolin-2(1H)-one	416.9
758	3-(1H-benzimidazol-2-yl)-7-chloro-4-{[2-(methylamino)ethyl]amino}quinolin-2(1H)-one	368.8
759	3-(1H-benzimidazol-2-yl)-7-chloro-4-[(piperidin-2-ylmethyl)amino]quinolin-2(1H)-one	408.9
760	3-(1H-benzimidazol-2-yl)-7-chloro-4-(piperidin-4-ylamino)quinolin-2(1H)-one	394.9
761	4-amino-3-[5-(1,4'-bipiperidin-1'-ylcarbonyl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	471.6
762	4-amino-3-{5-[(3S)-3-(dimethylnitroryl)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	405.5
763	4-amino-3-(5-{2-[(dimethylamino)methyl]morpholin-4-yl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	419.5
764	methyl 4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-methyl-2-oxo-1,2-dihydroquinolin-6-yl]benzoate	534.6
765	3-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-methyl-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	520.6
766	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-methyl-2-oxo-1,2-dihydroquinolin-6-yl]benzamide	519.6
767	4-[4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-5-methyl-2-oxo-1,2-dihydroquinolin-6-yl]benzoic acid	520.6
768	4-amino-3-{5-[(2S)-2-(pyrrolidin-1-ylmethyl)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	429.5
769	2-(4-amino-5-fluoro-2-oxo-1,2-dihydroquinolin-3-yl)-N-methyl-N-(1-methylpiperidin-4-yl)-1H-benzimidazole-6-carboxamide	449.5
770	4-amino-3-(1H-benzimidazol-2-yl)-5-[(1-methylpiperidin-4-yl)oxy]quinolin-2(1H)-one	390.5
771	4-amino-5-(1-azabicyclo[2.2.2]oct-3-yloxy)-3-(1H-benzimidazol-2-yl)quinolin-2(1H)-one	402.5
772	4-amino-5-fluoro-3-{6-[(2-piperidin-1-ylethyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	421.5
773	4,6-diamino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	390.5
774	2-(4-amino-5-fluoro-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazole-5-carboxylic acid	339.3
775	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N-pyridin-3-yl-1H-benzimidazole-5-carboxamide	397.4

776	4-amino-3-(5-{[(3R)-3-hydroxypyrrolidin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	390.4
777	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}acetamide	432.5
778	4-amino-5-fluoro-3-(6-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	380.4
779	3-(5-chloro-1H-benzimidazol-2-yl)-4-{[2-(dimethylamino)ethyl]amino}-6-methylquinolin-2(1H)-one	396.9
780	4-{[(1R,2R)-2-aminocyclohexyl]amino}-3-(5-chloro-1H-benzimidazol-2-yl)-6-methylquinolin-2(1H)-one	422.9
781	3-(5-chloro-1H-benzimidazol-2-yl)-6-methyl-4-[(piperidin-3-ylmethyl)amino]quinolin-2(1H)-one	422.9
782	3-(5-chloro-1H-benzimidazol-2-yl)-6-methyl-4-[(piperidin-4-ylmethyl)amino]quinolin-2(1H)-one	422.9
783	4-[(4-aminocyclohexyl)amino]-3-(5-chloro-1H-benzimidazol-2-yl)-6-methylquinolin-2(1H)-one	422.9
784	3-(5-chloro-1H-benzimidazol-2-yl)-6-methyl-4-{[2-(methylamino)ethyl]amino}quinolin-2(1H)-one	382.9
785	3-(5-chloro-1H-benzimidazol-2-yl)-6-methyl-4-(pyrrolidin-3-ylamino)quinolin-2(1H)-one	394.9
786	3-(5-chloro-1H-benzimidazol-2-yl)-6-methyl-4-[(piperidin-2-ylmethyl)amino]quinolin-2(1H)-one	422.9
787	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(5-chloro-1H-benzimidazol-2-yl)-6-methylquinolin-2(1H)-one	434.9
788	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(5-chloro-1H-benzimidazol-2-yl)-6-methylquinolin-2(1H)-one	434.9
789	4-amino-3-(6-{(2R,5R)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	433.5
790	4-amino-3-(5-{[(3R)-3-hydroxypiperidin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	404.4
791	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N-(2-piperidin-1-ylethyl)-1H-benzimidazole-5-carboxamide	431.5
792	4-amino-3-[5-(piperazin-1-ylcarbonyl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	389.4
793	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-2,2-dimethylpropanamide	474.6
794	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-3-phenylpropanamide	522.6
795	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-2-(benzyloxy)acetamide	538.6
796	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-2-thien-2-ylacetamide	514.6
797	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-2-furamide	484.5
798	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N-(2-pyrrolidin-1-ylethyl)-1H-benzimidazole-5-carboxamide	417.5
799	ethyl (4-{[2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazol-5-yl]carbonyl}piperazin-1-yl)acetate	475.5
800	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-N'-phenylurea	509.6

801	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-N'-benzylurea	523.6
802	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-N'-(2-phenylethyl)urea	537.6
803	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}benzamide	494.6
804	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N-piperidin-3-yl-1H-benzimidazole-5-carboxamide	403.5
805	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N-[(3R)-1-azabicyclo[2.2.2]oct-3-yl]-1H-benzimidazole-6-carboxamide	429.5
806	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N-[2-(diethylamino)ethyl]-N-ethyl-1H-benzimidazole-5-carboxamide	447.6
807	4-amino-3-[6-(pyridin-4-yloxy)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	370.4
808	4-amino-5-fluoro-3-{6-[(4-methylpiperazin-1-yl)carbonyl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	421.4
809	4-amino-5-fluoro-3-{6-[(4-isopropylpiperazin-1-yl)carbonyl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	449.5
810	4-amino-3-{6-[(4-cyclohexylpiperazin-1-yl)carbonyl]-1H-benzimidazol-2-yl}-5-fluoroquinolin-2(1H)-one	489.6
811	4-amino-6-(isobutylamino)-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	446.6
812	2-(4-amino-5-fluoro-2-oxo-1,2-dihydroquinolin-3-yl)-N-methyl-N-(1-methylpyrrolidin-3-yl)-1H-benzimidazole-6-carboxamide	488.6
813	4-amino-6-[(2-methylbutyl)amino]-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	460.6
814	4-amino-6-[(cyclohexylmethyl)amino]-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	486.6
815	4-amino-3-(6-{[(3S)-3-methylpiperazin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	403.5
816	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N-[(3S)-1-azabicyclo[2.2.2]oct-3-yl]-1H-benzimidazole-6-carboxamide	429.5
817	4-amino-3-[6-(1,4'-bipiperidin-1'-ylcarbonyl)-1H-benzimidazol-2-yl]-5-fluoroquinolin-2(1H)-one	489.6
818	2-(4-amino-5-fluoro-2-oxo-1,2-dihydroquinolin-3-yl)-N-methyl-N-(1-methylpyrrolidin-3-yl)-1H-benzimidazole-6-carboxamide	435.5
819	4-amino-3-(1H-benzimidazol-2-yl)-5-[(4-methoxyphenyl)thio]quinolin-2(1H)-one	415.5
820	4-amino-3-(1H-benzimidazol-2-yl)-5-[(4-methoxyphenyl)sulfonyl]quinolin-2(1H)-one	447.5
821	4-amino-3-(1H-benzimidazol-2-yl)-5-[(2-methoxyphenyl)thio]quinolin-2(1H)-one	415.5
822	N-(4-{[2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazol-5-yl]oxy}phenyl)acetamide	426.4
823	4-amino-6-(benzylamino)-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	480.6
824	4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-6-{[(3-phenoxythien-2-yl)methyl]amino}quinolin-2(1H)-one	578.7
825	4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-6-{[(3-methylthien-2-yl)methyl]amino}quinolin-2(1H)-one	500.6

826	4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-6-[(1,3-thiazol-2-ylmethyl)amino]quinolin-2(1H)-one	487.6
827	4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-6-[(pyrazin-2-ylmethyl)amino]quinolin-2(1H)-one	482.6
828	4-amino-3-(5-{2-[(dimethylamino)methyl]-1,4-oxazepan-4-yl}-1H-benzimidazol-2-yl)-5-fluoroquinolin-2(1H)-one	433.5
829	4-amino-3-(5-{2-[(dimethylamino)methyl]-1,4-oxazepan-4-yl}-1H-benzimidazol-2-yl)-5-fluoroquinolin-2(1H)-one	451.5
830	6-chloro-4-{[2-(dimethylamino)-2-pyridin-3-ylethyl]amino}-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	545.1
831	6-amino-4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)quinolin-2(1H)-one	401.5
832	6-chloro-3-(5-chloro-1H-benzimidazol-2-yl)-4-{[2-(dimethylamino)ethyl]amino}quinolin-2(1H)-one	417.3
833	4-{[(1R,2R)-2-aminocyclohexyl]amino}-6-chloro-3-(5-chloro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	443.3
834	6-chloro-3-(5-chloro-1H-benzimidazol-2-yl)-4-[(piperidin-3-ylmethyl)amino]quinolin-2(1H)-one	443.3
835	6-chloro-3-(5-chloro-1H-benzimidazol-2-yl)-4-[(piperidin-4-ylmethyl)amino]quinolin-2(1H)-one	443.3
836	4-[(4-aminocyclohexyl)amino]-6-chloro-3-(5-chloro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	443.3
837	6-chloro-3-(5-chloro-1H-benzimidazol-2-yl)-4-{[2-(methylamino)ethyl]amino}quinolin-2(1H)-one	403.3
838	6-chloro-3-(5-chloro-1H-benzimidazol-2-yl)-4-(pyrrolidin-3-ylamino)quinolin-2(1H)-one	415.3
839	6-chloro-3-(5-chloro-1H-benzimidazol-2-yl)-4-[(piperidin-2-ylmethyl)amino]quinolin-2(1H)-one	443.3
840	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-chloro-3-(5-chloro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	455.4
841	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-chloro-3-(5-chloro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	455.4
842	4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-6-{[(2S)-pyrrolidin-2-ylmethyl]amino}quinolin-2(1H)-one	473.6
843	4-amino-6-{[(5-methylisoxazol-3-yl)methyl]amino}-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	485.6
844	4-amino-3-(5-{(2S,5R)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	433.5
845	3-(5-chloro-1H-benzimidazol-2-yl)-4-{[2-(dimethylamino)ethyl]amino}-6,7-difluoroquinolin-2(1H)-one	418.8
846	4-{[(1R,2R)-2-aminocyclohexyl]amino}-3-(5-chloro-1H-benzimidazol-2-yl)-6,7-difluoroquinolin-2(1H)-one	444.9
847	3-(5-chloro-1H-benzimidazol-2-yl)-6,7-difluoro-4-[(piperidin-3-ylmethyl)amino]quinolin-2(1H)-one	444.9
848	3-(5-chloro-1H-benzimidazol-2-yl)-6,7-difluoro-4-[(piperidin-4-ylmethyl)amino]quinolin-2(1H)-one	444.9
849	4-[(4-aminocyclohexyl)amino]-3-(5-chloro-1H-benzimidazol-2-yl)-6,7-difluoroquinolin-2(1H)-one	444.9
850	3-(5-chloro-1H-benzimidazol-2-yl)-6,7-difluoro-4-{[2-(methylamino)ethyl]amino}quinolin-2(1H)-one	404.8

851	3-(5-chloro-1H-benzimidazol-2-yl)-6,7-difluoro-4-(pyrrolidin-3-ylamino)quinolin-2(1H)-one	416.8
852	3-(5-chloro-1H-benzimidazol-2-yl)-6,7-difluoro-4-[(piperidin-2-ylmethyl)amino]quinolin-2(1H)-one	444.9
853	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(5-chloro-1H-benzimidazol-2-yl)-6,7-difluoroquinolin-2(1H)-one	456.9
854	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(5-chloro-1H-benzimidazol-2-yl)-6,7-difluoroquinolin-2(1H)-one	456.9
855	4-amino-3-(6-{[(3R)-3-methylpiperazin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	403.5
856	4-amino-3-(5-{[(3S)-3-hydroxypyrrolidin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	390.4
857	4-amino-3-(5-{[4-(2-hydroxyethyl)piperazin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	433.5
858	4-amino-3-[6-(4-isopropylpiperazin-1-yl)-1H-benzimidazol-2-yl]-5-methoxyquinolin-2(1H)-one	433.5
859	4-amino-3-(5-{3-[(dimethylamino)methyl]pyrrolidin-1-yl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	403.5
860	4-amino-3-(5-{3-[(dimethylamino)methyl]pyrrolidin-1-yl}-1H-benzimidazol-2-yl)-5-fluoroquinolin-2(1H)-one	421.5
861	4-amino-3-(6-{(2R,5S)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	433.5
862	4-amino-3-[6-(4-ınethylpiperazin-1-yl)-1H-benzimidazol-2-yl]-6-(piperidin-4-ylamino)quinolin-2(1H)-one	473.6
863	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-[(3S)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	479.0
864	4-amino-3-{5-[(3R)-3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}-5-fluoroquinolin-2(1H)-one	407.5
865	4-amino-3-{5-[(3S)-3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}-5-fluoroquinolin-2(1H)-one	407.5
866	4-amino-3-[6-(2,6-dimethylmorpholin-4-yl)-1H-benzimidazol-2-yl]-5-fluoroquinolin-2(1H)-one	408.4
867	4-amino-3-{6-[(3-aminopyrrolidin-1-yl)carbonyl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	389.4
868	ethyl (3S,4R)-4-({[2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazol-6-yl]carbonyl}amino)-3-methoxypiperidine-1-carboxylate	505.5
869	6-amino-3-(1H-benzimidazol-2-yl)-4-[(3S)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	361.4
870	4-amino-3-(6-{(2R,5S)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}-1H-benzimidazol-2-yl)-5-fluoroquinolin-2(1H)-one	451.5
871	N-{(3S)-1-[2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazol-6-yl]pyrrolidin-3-yl}-N-methylacetamide	417.5
872	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N-piperidin-4-yl-1H-benzimidazole-6-carboxamide	403.5
873	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N-[2-(1-methylpyrrolidin-2-yl)ethyl]-1H-benzimidazole-6-carboxamide	431.5
874	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-N'-isopropylurea	475.6

875	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-N'-(3,5-dimethylphenyl)urea	537.6
876	N-allyl-N'-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}urea	473.6
877	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-N'-(tert-butyl)urea	489.6
878	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-N'-[2-(methylthio)phenyl]urea	555.7
879	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}heptanamide	502.6
880	4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-6-(neopentylamino)quinolin-2(1H)-one	460.6
881	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-N'-(3,4-dichlorophenyl)urea	578.5
882	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-N'-[3-(trifluoromethyl)phenyl]urea	577.6
883	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-N'-heptylurea	531.7
884	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-N'-(2-ethoxyphenyl)urea	553.6
885	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-2-methylpropanamide	460.6
886	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-4-ethylbenzamide	522.6
887	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}-4-cyanobenzamide	519.6
888	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}cyclohexanecarboxamide	500.6
889	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}pyrazine-2-carboxamide	496.5
890	N-{4-amino-3-[6-(4-methylpiperazinyl)benzimidazol-2-yl]-2-oxo(6-hydroquinolyl)}-2-[benzylamino]acetamide	537.6
891	4-amino-6-[methyl(1-methylpiperidin-4-yl)amino]-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	501.6
892	4-amino-6-[({5-[(dimethylamino)methyl]-2-furyl}methyl)amino]-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	527.6
893	4-amino-6-{[(2-ethyl-5-methyl-4H-imidazol-4-yl)methyl]amino}-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	512.6
894	N-{4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}butanamide	460.6
895	4-amino-3-(5-{[(2R)-2-(pyrrolidin-1-ylmethyl)pyrrolidin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	457.5
896	4-amino-3-[5-({(2R,5R)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}carbonyl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	461.5

897	4-amino-3-[5-({(2S,5R)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}carbonyl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	461.5
898	4-amino-5-fluoro-3-(6-{[(3S)-3-methylpiperazin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	421.4
899	4-amino-5-fluoro-3-(6-{[(3R)-3-methylpiperazin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	421.4
900	4-amino-5-fluoro-3-(5-{[(2R)-2-(pyrrolidin-1-ylmethyl)pyrrolidin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	475.5
901	4-amino-6-(dimethylamino)-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	418.5
902	4-amino-6-(methylamino)-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	404.5
903	4-amino-5-fluoro-3-[5-fluoro-6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	411.4
904	4-amino-3-[6-({(2R,5S)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}carbonyl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	461.5
905	4-amino-3-[6-({(2S,5S)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}carbonyl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	461.5
906	4-amino-3-{6-[(3,5-dimethylpiperazin-1-yl)carbonyl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	417.5
907	4-amino-3-[5-(4-ethylpiperazin-1-yl)-1H-benzimidazol-2-yl]-5-fluoroquinolin-2(1H)-one	407.5
908	4-amino-3-[6-({(2R,5S)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}carbonyl)-1H-benzimidazol-2-yl]-5-fluoroquinolin-2(1H)-one	479.5
909	4-amino-3-[6-({(2S,5S)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}carbonyl)-1H-benzimidazol-2-yl]-5-fluoroquinolin-2(1H)-one	479.5
910	4-amino-3-[5-({(2R,5R)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}carbonyl)-1H-benzimidazol-2-yl]-5-fluoroquinolin-2(1H)-one	479.5
911	4-amino-3-[5-({(2S,5R)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}carbonyl)-1H-benzimidazol-2-yl]-5-fluoroquinolin-2(1H)-one	479.5
912	N-[3-({4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-5-yl}oxy)phenyl]acetamide	524.6
913	4-amino-3-{6-[(4-ethylpiperazin-1-yl)carbonyl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	417.5
914	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N,N'-dimethyl-1H-benzimidazole-6-carbohydrazide	363.4
915	2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-N-(tetrahydrofuran-2-ylmethyl)-1H-benzimidazole-6-carboxamide	404.4
916	4-amino-5-[3-(dimethylamino)phenoxy]-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	510.6
917	4-amino-5-(4-aminophenoxy)-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	482.6

918	6-chloro-4-{[2-(dimethylamino)ethyl]amino}-3-(6-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	400.9
919	4-{[(1R,2R)-2-aminocyclohexyl]amino}-6-chloro-3-(6-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	426.9
920	6-chloro-3-(6-fluoro-1H-benzimidazol-2-yl)-4-[(piperidin-3-ylmethyl)amino]quinolin-2(1H)-one	426.9
921	6-chloro-3-(6-fluoro-1H-benzimidazol-2-yl)-4-[(piperidin-4-ylmethyl)amino]quinolin-2(1H)-one	426.9
922	4-[(4-aminocyclohexyl)amino]-6-chloro-3-(6-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	426.9
923	6-chloro-3-(6-fluoro-1H-benzimidazol-2-yl)-4-{[2-(methylamino)ethyl]amino}quinolin-2(1H)-one	386.8
924	6-chloro-3-(6-fluoro-1H-benzimidazol-2-yl)-4-[(3S)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	398.8
925	6-chloro-3-(6-fluoro-1H-benzimidazol-2-yl)-4-[(3R)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	398.8
926	6-chloro-3-(6-fluoro-1H-benzimidazol-2-yl)-4-[(piperidin-2-ylmethyl)amino]quinolin-2(1H)-one	426.9
927	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-chloro-3-(6-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	438.9
928	6-bromo-4-{[2-(dimethylamino)ethyl]amino}-3-(6-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	445.3
929	4-{[(1R,2R)-2-aminocyclohexyl]amino}-6-bromo-3-(6-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	471.3
930	6-bromo-3-(6-fluoro-1H-benzimidazol-2-yl)-4-[(piperidin-3-ylmethyl)amino]quinolin-2(1H)-one	471.3
931	6-bromo-3-(6-fluoro-1H-benzimidazol-2-yl)-4-[(piperidin-4-ylmethyl)amino]quinolin-2(1H)-one	471.3
932	4-[(4-aminocyclohexyl)amino]-6-bromo-3-(6-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	471.3
933	6-bromo-3-(6-fluoro-1H-benzimidazol-2-yl)-4-{[2-(methylamino)ethyl]amino}quinolin-2(1H)-one	431.3
934	6-bromo-3-(6-fluoro-1H-benzimidazol-2-yl)-4-[(3S)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	443.3
935	6-bromo-3-(6-fluoro-1H-benzimidazol-2-yl)-4-[(piperidin-2-ylmethyl)amino]quinolin-2(1H)-one	471.3
936	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-bromo-3-(6-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	483.4
937	6-bromo-3-(6-fluoro-1H-benzimidazol-2-yl)-4-[(3R)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	443.3
938	N-[4-({4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-5-yl}oxy)phenyl]acetamide	524.6
939	4-amino-3-{6-[(4-ethylpiperazin-1-yl)carbonyl]-1H-benzimidazol-2-yl}-5-fluoroquinolin-2(1H)-one	435.5
940	ethyl (3S,4R)-4-({[2-(4-amino-5-fluoro-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazol-6-yl]carbonyl}amino)-3-methoxypiperidine-1-carboxylate	523.5
941	2-(4-amino-5-fluoro-2-oxo-1,2-dihydroquinolin-3-yl)-N-[(3R)-1-azabicyclo[2.2.2]oct-3-yl]-1H-benzimidazole-6-carboxamide	447.5
942	2-(4-amino-5-fluoro-2-oxo-1,2-dihydroquinolin-3-yl)-N-[(3S)-1-azabicyclo[2.2.2]oct-3-yl]-1H-benzimidazole-6-carboxamide	447.5

943	4-amino-5-fluoro-3-{5-[(5-methyl-2,5-diazabicyclo[2.2.1]hept-2-yl)carbonyl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	433.5
944	4-amino-3-[5-(1,4'-bipiperidin-1'-yl)-1H-benzimidazol-2-yl]-5-fluoroquinolin-2(1H)-one	461.6
945	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-chloro-3-(7-morpholin-4-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	506.0
946	6-chloro-3-(7-morpholin-4-yl-1H-benzimidazol-2-yl)-4-(piperidin-4-ylamino)quinolin-2(1H)-one	480.0
947	6-chloro-3-(7-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(3S)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	466.0
948	4-amino-7-fluoro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	393.4
949	4-amino-3-{6-[(2,6-dimethylpiperazin-1-yl)carbonyl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	417.5
950	4-amino-3-(5-{(2S,5R)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}-1H-benzimidazol-2-yl)-5-fluoroquinolin-2(1H)-one	451.5
951	6-chloro-3-(5-morpholin-4-yl-1H-benzimidazol-2-yl)-4-[(3S)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	466.0
952	4-amino-3-(5-{(2S,5S)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}-1H-benzimidazol-2-yl)-5-fluoroquinolin-2(1H)-one	451.5
953	4-amino-3-(1H-benzimidazol-2-yl)-6-[methyl(1-methylpiperidin-4-yl)amino]quinolin-2(1H)-one	403.5
954	4-amino-6-[isobutyl(methyl)amino]-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	460.6
955	4-amino-6-[(cyclohexylmethyl)(methyl)amino]-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	500.7
956	4,6-diamino-3-(6,7-dimethyl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	320.4
957	4-amino-3-(6,7-dimethyl-1H-benzimidazol-2-yl)-6-(methylamino)quinolin-2(1H)-one	334.4
958	4-amino-3-(5,6-dimethyl-1H-benzimidazol-2-yl)-6-(methylamino)quinolin-2(1H)-one	334.4
959	4,6-diamino-3-(1H-benzimidazol-2-yl)quinolin-2(1H)-one	292.3
960	4-amino-3-(6,7-dimethyl-1H-benzimidazol-2-yl)-6-(isobutylamino)quinolin-2(1H)-one	376.5
961	4-amino-3-(5,6-dimethyl-1H-benzimidazol-2-yl)-6-(isobutylamino)quinolin-2(1H)-one	376.5
962	N-(3-{[2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazol-6-yl]oxy}phenyl)acetamide	426.4
963	4-amino-3-[6-(3,4-dimethylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	389.5
964	N-[3-({4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinolin-6-yl}oxy)phenyl]acetamide	524.6
965	4-amino-3-(6-{(2R,5R)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}-1H-benzimidazol-2-yl)-5-fluoroquinolin-2(1H)-one	451.5
966	4-{[(1R,2R)-2-aminocyclohexyl]amino}-6-bromo-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	505.8

967	6-bromo-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)-4-[(piperidin-4-ylmethyl)amino]quinolin-2(1H)-one	505.8
968	4-[(4-aminocyclohexyl)amino]-6-bromo-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	505.8
969	6-bromo-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)-4-{[2-(methylamino)ethyl]amino}quinolin-2(1H)-one	465.7
970	6-bromo-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)-4-(pyrrolidin-3-ylamino)quinolin-2(1H)-one	477.7
971	6-bromo-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)-4-[(3R)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	477.7
972	6-bromo-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)-4-[(piperidin-2-ylmethyl)amino]quinolin-2(1H)-one	505.8
973	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-bromo-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	517.8
974	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-bromo-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	517.8
975	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-bromo-3-(6-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	483.4
976	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-chloro-3-(6-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	438.9
977	4-amino-6-[bis(cyclohexylmethyl)amino]-3-(6,7-dimethyl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	512.7
978	4-amino-6-[bis(cyclohexylmethyl)amino]-3-(5,6-dimethyl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	512.7
979	4-amino-5-(methylamino)-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	404.5
980	4-amino-6-[(cyclohexylmethyl)amino]-3-(6,7-dimethyl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	416.5
981	4-amino-6-[(cyclohexylmethyl)amino]-3-(5,6-dimethyl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	416.5
982	4-amino-6,7-difluoro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	411.4
983	4-amino-5-fluoro-3-[6-(2-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	393.4
984	4-amino-7-fluoro-3-{6-[(4-isopropylpiperazin-1-yl)carbonyl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	449.5
985	4-amino-3-[6-(2,4-dimethylpiperazin-1-yl)-1H-benzimidazol-2-yl]-5-fluoroquinolin-2(1H)-one	407.5
986	2-(4-amino-7-fluoro-2-oxo-1,2-dihydroquinolin-3-yl)-N-methyl-N-(1-methylpiperidin-4-yl)-1H-benzimidazole-5-carboxamide	449.5
987	6-chloro-3-(5-chloro-1H-benzimidazol-2-yl)-4-[(3S)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	415.3
988	4-amino-7-fluoro-3-(5-{[(2R)-2-(pyrrolidin-1-ylmethyl)pyrrolidin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	475.5
989	4-amino-3-{6-[4-(2-methoxyethyl)piperazin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	419.5
990	4-amino-3-[5-(methylamino)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	306.3
991	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-{[(3S)-1-methylpyrrolidin-3-yl]amino}quinolin-2(1H)-one	493.0

992	6-chloro-3-(5-chloro-1H-benzimidazol-2-yl)-4-{[(3S)-1-methylpyrrolidin-3-yl]amino}quinolin-2(1H)-one	429.3
993	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[(3S)-1-methylpyrrolidin-3-yl]amino}quinolin-2(1H)-one	394.9
994	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(1-methylpiperidin-4-yl)amino]quinolin-2(1H)-one	408.9
995	6-chloro-3-(5-chloro-1H-benzimidazol-2-yl)-4-[(1-methylpiperidin-4-yl)amino]quinolin-2(1H)-one	443.3
996	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-[(1-methylpiperidin-4-yl)amino]quinolin-2(1H)-one	507.1
997	6-chloro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-{[(1-methylpiperidin-2-yl)methyl]amino}quinolin-2(1H)-one	521.1
998	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-chloro-3-{5-[methyl(1-methylpiperidin-4-yl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	547.1
999	6-chloro-3-{5-[methyl(1-methylpiperidin-4-yl)amino]-1H-benzimidazol-2-yl}-4-(piperidin-4-ylamino)quinolin-2(1H)-one	521.1
1000	6-chloro-3-{5-[methyl(1-methylpiperidin-4-yl)amino]-1H-benzimidazol-2-yl}-4-[(3S)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	507.1
1001	4-{[(2R)-2-aminobutyl]amino}-6-chloro-3-{5-[methyl(1-methylpiperidin-4-yl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	509.1
1002	4-amino-3-{6-[(3S)-3,4-dimethylpiperazin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	389.5
1003	4-amino-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinoline-6-carbonitrile	400.5
1004	4-amino-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinoline-6-carboxylic acid	419.5
1005	4-amino-5-fluoro-3-{5-[(8aS)-hexahydropyrrolo[1,2-a]pyrazin-2(1H)-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	419.5
1006	4-amino-3-{6-[(3S)-3,4-dimethylpiperazin-1-yl]-1H-benzimidazol-2-yl}-5-fluoroquinolin-2(1H)-one	407.5
1007	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-chloro-3-{6-[(3R)-3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	533.1
1008	6-chloro-3-{6-[(3R)-3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}-4-(piperidin-4-ylamino)quinolin-2(1H)-one	507.1
1009	6-chloro-3-{6-[(3R)-3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}-4-[(3S)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	493.0
1010	4-{[(2R)-2-aminobutyl]amino}-6-chloro-3-{6-[(3R)-3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	495.0
1011	6-chloro-3-{6-[(3R)-3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}-4-{[(3S)-1-methylpyrrolidin-3-yl]amino}quinolin-2(1H)-one	507.1
1012	6-chloro-3-{6-[(3R)-3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}-4-[(1-methylpiperidin-4-yl)amino]quinolin-2(1H)-one	521.1

1013	4-amino-7-(methylamino)-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	404.5
1014	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(2-morpholin-4-yl-2-pyridin-3-ylethyl)amino]quinolin-2(1H)-one	502.0
1015	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[2-(dimethylamino)-2-pyridin-3-ylethyl]amino}quinolin-2(1H)-one	460.0
1016	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-chloro-3-(6-{3-[(dimethylamino)methyl]pyrrolidin-1-yl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	547.1
1017	6-chloro-3-(6-{3-[(dimethylamino)methyl]pyrrolidin-1-yl}-1H-benzimidazol-2-yl)-4-(piperidin-4-ylamino)quinolin-2(1H)-one	521.1
1018	6-chloro-3-(6-{3-[(dimethylamino)methyl]pyrrolidin-1-yl}-1H-benzimidazol-2-yl)-4-[(3S)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	507.1
1019	4-{[(2R)-2-aminobutyl]amino}-6-chloro-3-(6-{3-[(dimethylamino)methyl]pyrrolidin-1-yl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	509.1
1020	6-chloro-3-(6-{3-[(dimethylamino)methyl]pyrrolidin-1-yl}-1H-benzimidazol-2-yl)-4-{[(3S)-1-methylpyrrolidin-3-yl]amino}quinolin-2(1H)-one	521.1
1021	6-chloro-3-(6-{3-[(dimethylamino)methyl]pyrrolidin-1-yl}-1H-benzimidazol-2-yl)-4-[(1-methylpiperidin-4-yl)amino]quinolin-2(1H)-one	535.1
1022	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[(3S)-piperidin-3-ylmethyl]amino}quinolin-2(1H)-one	408.9
1023	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[(3R)-piperidin-3-ylmethyl]amino}quinolin-2(1H)-one	408.9
1024	N-(3-{[4-amino-3-(1H-benzimidazol-2-yl)-2-oxo-1,2-dihydroquinolin-5-yl]oxy}phenyl)acetamide	426.4
1025	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-chloro-3-{6-[3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	533.1
1026	6-chloro-3-{6-[3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}-4-(piperidin-4-ylamino)quinolin-2(1H)-one	507.1
1027	4-{[(2R)-2-aminobutyl]amino}-6-chloro-3-{6-[3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	495.0
1028	6-chloro-3-{6-[3-(dimethylamino)pyrrolidin-1-yl]-1H-benzimidazol-2-yl}-4-[(1-methylpiperidin-4-yl)amino]quinolin-2(1H)-one	521.1
1029	4-amino-7-[[2-(dimethylamino)ethyl](methyl)amino]-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	475.6
1030	4-amino-5-fluoro-3-[6-(1,4-oxazepan-4-ylcarbonyl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	422.4
1031	methyl 4-amino-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinoline-6-carboxylate	433.5
1032	4-amino-N-benzyl-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinoline-6-carboxamide	508.6
1033	4-amino-3-{6-[4-(2-morpholin-4-ylethyl)piperazin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	474.6

1034	4-amino-7-fluoro-3-[6-(4-isopropylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	421.5
1035	4-amino-3-[5-(4-ethylpiperazin-1-yl)-1H-benzimidazol-2-yl]-7-fluoroquinolin-2(1H)-one	407.5
1036	4-amino-3-{6-[(2-aminoethyl)(methyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	349.4
1037	4-amino-3-{6-[[(2-ethyl-4-methyl-1H-imidazol-5-yl)methyl](methyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	428.5
1038	4-amino-3-[6-(hydroxymethyl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	307.3
1039	4-amino-3-(6-{methyl[(2R)-pyrrolidin-2-ylmethyl]amino}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	389.5
1040	4-amino-3-{6-[(1H-imidazol-2-ylmethyl)(methyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	386.4
1041	4-amino-3-{6-[(2-furylmethyl)(methyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	386.4
1042	4-amino-3-{6-[methyl(piperidin-4-ylmethyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	403.5
1043	4-amino-3-{6-[methyl(piperidin-3-ylmethyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	403.5
1044	4-amino-3-(6-{methyl[2-(methylamino)ethyl]amino}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	363.4
1045	6-acetyl-4-amino-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	417.5
1046	4-amino-5-[2-(methylamino)phenoxy]-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	496.6
1047	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[(2S)-piperidin-2-ylmethyl]amino}quinolin-2(1H)-one	408.9
1048	4-amino-3-[6-(1,4-oxazepan-4-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	376.4
1049	4-amino-3-[5-(4-ethylpiperazin-1-yl)-1H-benzimidazol-2-yl]-6-fluoroquinolin-2(1H)-one	407.5
1050	6-chloro-3-(5-chloro-1H-benzimidazol-2-yl)-4-[(3R)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	415.3
1051	4-amino-6-fluoro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-7-morpholin-4-ylquinolin-2(1H)-one	478.5
1052	4-amino-6-fluoro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-7-pyrrolidin-1-ylquinolin-2(1H)-one	462.5
1053	4-amino-7-(dimethylamino)-6-fluoro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	436.5
1054	4-amino-6-fluoro-7-(4-methylpiperazin-1-yl)-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	491.6
1055	4-amino-6-fluoro-7-[(4-methoxybenzyl)amino]-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	528.6
1056	4-amino-6-fluoro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-7-[(pyridin-4-ylmethyl)amino]quinolin-2(1H)-one	499.6
1057	4-amino-7-[[2-(dimethylamino)ethyl](methyl)amino]-6-fluoro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	493.6

1058	4-amino-3-[6-(4-cyclopentylpiperazin-1-yl)-1H-benzimidazol-2-yl]-5-fluoroquinolin-2(1H)-one	447.5
1059	4-amino-6-[1-(methylamino)ethyl]-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	432.5
1060	4-amino-5-fluoro-3-[6-(1,4-oxazepan-4-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	394.4
1061	4-amino-3-{6-[methyl(pyridin-3-ylmethyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	397.5
1062	4-amino-3-{6-[({5-[(dimethylamino)methyl]-2-furyl}methyl)(methyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	443.5
1063	4-amino-3-[6-(4-oxopiperidin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	374.4
1064	4-amino-3-{6-[4-(4-methylpiperazin-1-yl)piperidin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	458.6
1065	4-amino-3-[6-(4-{[(4-benzylmorpholin-2-yl)methyl]amino}piperidin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	564.7
1066	3-(1H-benzimidazol-2-yl)-6-bromo-4-{[2-(dimethylamino)ethyl]amino}quinolin-2(1H)-one	427.3
1067	4-{[(1R,2R)-2-aminocyclohexyl]amino}-3-(1H-benzimidazol-2-yl)-6-bromoquinolin-2(1H)-one	453.4
1068	3-(1H-benzimidazol-2-yl)-6-bromo-4-[(piperidin-4-ylmethyl)amino]quinolin-2(1H)-one	453.4
1069	4-[(4-aminocyclohexyl)amino]-3-(1H-benzimidazol-2-yl)-6-bromoquinolin-2(1H)-one	453.4
1070	3-(1H-benzimidazol-2-yl)-6-bromo-4-{[2-(methylamino)ethyl]amino}quinolin-2(1H)-one	413.3
1071	3-(1H-benzimidazol-2-yl)-6-bromo-4-[(3S)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	425.3
1072	3-(1H-benzimidazol-2-yl)-6-bromo-4-[(3R)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	425.3
1073	3-(1H-benzimidazol-2-yl)-6-bromo-4-[(piperidin-2-ylmethyl)amino]quinolin-2(1H)-one	453.4
1074	4-amino-N-[(3S)-1-azabicyclo[2.2.2]oct-3-yl]-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-1,2-dihydroquinoline-6-carboxamide	527.6
1075	4-amino-N-methyl-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-N-(1-methylpiperidin-4-yl)-2-oxo-1,2-dihydroquinoline-6-carboxamide	529.7
1076	4-amino-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-2-oxo-N-(tetrahydrofuran-2-ylmethyl)-1,2-dihydroquinoline-6-carboxamide	502.6
1077	3-(1H-benzimidazol-2-yl)-6-chloro-4-[(3R)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	380.8
1078	3-(1H-benzimidazol-2-yl)-6-chloro-4-{[(2R)-piperidin-2-ylmethyl]amino}quinolin-2(1H)-one	408.9
1079	4-amino-3-{6-[(3R)-3,4-dimethylpiperazin-1-yl]-1H-benzimidazol-2-yl}-5-fluoroquinolin-2(1H)-one	407.5
1080	6-chloro-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)-4-{[2-(dimethylamino)ethyl]amino}quinolin-2(1H)-one	435.3

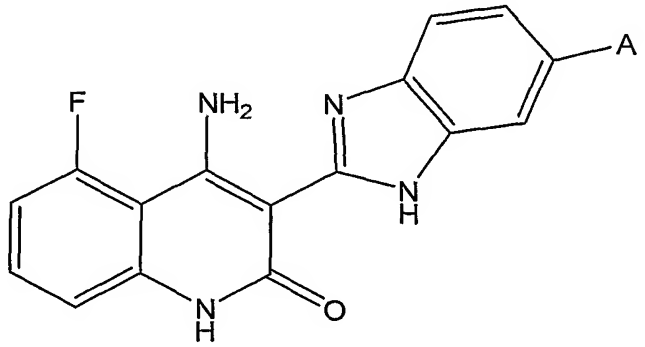
1081	4-{[(1R,2R)-2-aminocyclohexyl]amino}-6-chloro-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	461.3
1082	6-chloro-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)-4-[(piperidin-4-ylmethyl)amino]quinolin-2(1H)-one	461.3
1083	4-[(4-aminocyclohexyl)amino]-6-chloro-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	461.3
1084	6-chloro-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)-4-{[2-(methylamino)ethyl]amino}quinolin-2(1H)-one	421.3
1085	6-chloro-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)-4-[(3S)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	433.3
1086	6-chloro-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)-4-[(3R)-pyrrolidin-3-ylamino]quinolin-2(1H)-one	433.3
1087	6-chloro-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)-4-[(piperidin-2-ylmethyl)amino]quinolin-2(1H)-one	461.3
1088	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-chloro-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	473.3
1089	4-[(3R)-1-azabicyclo[2.2.2]oct-3-ylamino]-6-chloro-3-(6-chloro-5-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	473.3
1090	4-amino-6-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	393.4
1091	4-amino-3-(1H-benzimidazol-2-yl)-5-(methylamino)quinolin-2(1H)-one	306.3
1092	4-amino-3-{6-[(2S)-2,4-dimethylpiperazin-1-yl]-1H-benzimidazol-2-yl}-5-fluoroquinolin-2(1H)-one	407.5
1093	4-amino-5-fluoro-3-{6-[(2S)-2-methylpiperazin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	393.4
1094	4-amino-3-{6-[(2S)-4-isopropyl-2-methylpiperazin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	417.5
1095	4-amino-5,7-difluoro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	411.4
1096	3-(1H-benzimidazol-2-yl)-6-bromo-4-{[(2S)-piperidin-2-ylmethyl]amino}quinolin-2(1H)-one	453.4
1097	3-(1H-benzimidazol-2-yl)-6-bromo-4-{[(2R)-piperidin-2-ylmethyl]amino}quinolin-2(1H)-one	453.4
1098	4-amino-3-{6-[methyl(1,3-thiazol-2-ylmethyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	403.5
1099	4-amino-3-{6-[(1-ethylpiperidin-4-yl)(methyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	417.5
1100	4-amino-3-[6-(4-morpholin-4-ylpiperidin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	445.5
1101	4-amino-3-[6-(4-isopropylpiperazin-1-yl)-1H-benzimidazol-2-yl]-5-(methylamino)quinolin-2(1H)-one	432.5
1102	4-amino-3-{6-[methyl(pyridin-2-ylmethyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	397.5
1103	4-amino-3-{6-[(2S)-2,4-dimethylpiperazin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	389.5
1104	4-amino-3-{6-[(2S)-2-methylpiperazin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	375.4
1105	N-[2-(4-amino-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazol-6-yl]-N-methylacetamide	348.4

1106	4-amino-5-fluoro-3-{6-[(2S)-4-isopropyl-2-methylpiperazin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	435.5
1107	4-amino-3-{6-[(3R)-3,4-dimethylpiperazin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	389.5
1108	4-[(3S)-1-azabicyclo[2.2.2]oct-3-ylamino]-3-(1H-benzimidazol-2-yl)-6-(dimethylamino)quinolin-2(1H)-one	429.5
1109	4-amino-3-{6-[(2S)-4-cyclobutyl-2-methylpiperazin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	429.5
1110	4-amino-5-fluoro-3-[6-(methylamino)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	324.3
1111	4-amino-3-(1H-benzimidazol-2-yl)-5-(dimethylamino)quinolin-2(1H)-one	320.4
1112	4-amino-3-(1H-benzimidazol-2-yl)-5-{[2-(dimethylamino)ethyl]amino}quinolin-2(1H)-one	363.4
1113	4-amino-5-fluoro-3-(5-piperazin-1-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	379.4
1114	4-amino-3-{5-[[2-(dimethylamino)ethyl](methyl)amino]-1H-benzimidazol-2-yl}-5-fluoroquinolin-2(1H)-one	395.5
1115	4-amino-5-fluoro-3-{5-[methyl(piperidin-3-ylmethyl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	421.5
1116	4-amino-3-(1H-benzimidazol-2-yl)-5-[[2-(dimethylamino)ethyl](methyl)amino]quinolin-2(1H)-one	377.5
1117	4-amino-5-fluoro-3-{5-[(2R)-4-isopropyl-2-methylpiperazin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	435.5
1118	4-amino-3-{5-[(2S)-4-ethyl-2-methylpiperazin-1-yl]-1H-benzimidazol-2-yl}-5-fluoroquinolin-2(1H)-one	421.5
1119	4-amino-3-(5-{[(1-ethylpyrrolidin-2-yl)methyl]amino}-1H-benzimidazol-2-yl)-5-fluoroquinolin-2(1H)-one	421.5
1120	4-amino-3-(5-{[2-(dimethylamino)-1-methylethyl]amino}-1H-benzimidazol-2-yl)-5-fluoroquinolin-2(1H)-one	395.5
1121	4-amino-3-{5-[[2-(dimethylamino)-1-methylethyl](methyl)amino]-1H-benzimidazol-2-yl}-5-fluoroquinolin-2(1H)-one	409.5
1122	4-amino-3-(1H-benzimidazol-2-yl)-5-(1,2-dimethylhydrazino)quinolin-2(1H)-one	335.4
1123	4-amino-5-fluoro-3-{6-[4-(2-methoxyethyl)piperazin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	437.5
1124	4-amino-5-fluoro-3-{6-[methyl(1-methylpiperidin-4-yl)amino]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	421.5
1125	4-amino-5-fluoro-3-(6-{[3-(4-methylpiperazin-1-yl)propyl]amino}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	450.5
1126	4-amino-5-fluoro-3-(6-{methyl[3-(4-methylpiperazin-1-yl)propyl]amino}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	464.6
1127	N-[2-(4-amino-5-fluoro-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazol-6-yl]-N-methylacetamide	366.4
1128	4-amino-6-fluoro-3-(5-{[(2R)-2-(pyrrolidin-1-ylmethyl)pyrrolidin-1-yl]carbonyl}-1H-benzimidazol-2-yl)quinolin-2(1H)-one	475.5
1129	4-amino-3-(1H-benzimidazol-2-yl)-5-(ethylamino)quinolin-2(1H)-one	320.4

1130	4-amino-3-{5-[(2R)-2,4-dimethylpiperazin-1-yl]-1H-benzimidazol-2-yl}-5-fluoroquinolin-2(1H)-one	407.5
1131	4-amino-5-fluoro-3-{5-[(2R)-2-methylpiperazin-1-yl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	393.4
1132	4-amino-3-{5-[(2R)-4-cyclobutyl-2-methylpiperazin-1-yl]-1H-benzimidazol-2-yl}-5-fluoroquinolin-2(1H)-one	447.5
1133	4-amino-5-(dimethylamino)-3-[6-(4-isopropylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	446.6
1134	4-amino-5-{[2-(dimethylamino)ethyl]amino}-3-[6-(4-isopropylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	489.6
1135	4-amino-5-[[2-(dimethylamino)ethyl](methyl)amino]-3-[6-(4-isopropylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	503.7
1136	4-amino-5-(ethylamino)-3-[6-(4-isopropylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	446.6
1137	N-[2-(4-amino-2-oxo(3-hydroquinolyl))benzimidazol-6-yl]-2-(dimethylamino)-N-methylacetamide	391.4
1138	4-amino-5-fluoro-3-[6-(9-isopropyl-1-oxa-4,9-diazaspiro[5.5]undec-4-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	491.6
1139	4-amino-7-fluoro-3-[6-fluoro-5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	411.4
1140	4-amino-3-(5-{(2S,5S)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}-6-fluoro-1H-benzimidazol-2-yl)-5-fluoroquinolin-2(1H)-one	469.5
1141	4-amino-3-(5-{(2S,5S)-2-[(dimethylamino)methyl]-5-methylmorpholin-4-yl}-6-fluoro-1H-benzimidazol-2-yl)quinolin-2(1H)-one	451.5
1142	4-amino-5-methyl-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	389.5
1143	4-amino-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-5-(trifluoromethyl)quinolin-2(1H)-one	443.4
1144	4-amino-5-fluoro-3-[6-(2-isopropyl-5-oxa-2,8-diazaspiro[3.5]non-8-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	463.5
1145	4-amino-6-fluoro-3-[5-(4-isopropylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	421.5
1146	N-[2-(4-amino-5-fluoro-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazol-6-yl]-N-methyl-2-(4-methylpiperazin-1-yl)acetamide	464.5
1147	N-[2-(4-amino-5-fluoro-2-oxo-1,2-dihydroquinolin-3-yl)-1H-benzimidazol-6-yl]-N-methyl-2-morpholin-4-ylacetamide	451.5
1148	N-[2-(4-amino-5-fluoro-2-oxo(3-hydroquinolyl))benzimidazol-6-yl]-N-methyl-2-morpholin-4-ylacetamide	492.6
1149	4-amino-5-fluoro-3-(6-methyl-1H-benzimidazol-2-yl)quinolin-2(1H)-one	309.3
1150	4-amino-3-[5-(4-ethylpiperazin-1-yl)-1H-benzimidazol-2-yl]-5-methylquinolin-2(1H)-one	403.5
1151	4-amino-3-{6-[(4-methylpiperazin-1-yl)methyl]-1H-benzimidazol-2-yl}quinolin-2(1H)-one	389.5

1152	4-amino-3-[6-(1,4-diazepan-1-yl)-1H-benzimidazol-2-yl]-5-fluoroquinolin-2(1H)-one	393.4
1153	4-amino-5-fluoro-3-[6-(4-methyl-1,4-diazepan-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	407.5
1154	3-[6-(4-acetylpiperazin-1-yl)-1H-benzimidazol-2-yl]-4-amino-5-fluoroquinolin-2(1H)-one	421.4
1155	4-amino-3-[6-(4-ethyl-1,4-diazepan-1-yl)-1H-benzimidazol-2-yl]-5-fluoroquinolin-2(1H)-one	421.5
1156	4-amino-5-fluoro-3-[6-(4-isopropyl-1,4-diazepan-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one	435.5

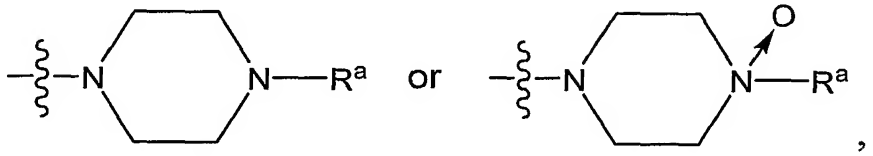
[0114] In yet another embodiment, the compound of Structure I is a compound of Structure II, where Structure II has the following formula:



II

wherein,

A is a group having one of the following Structures:

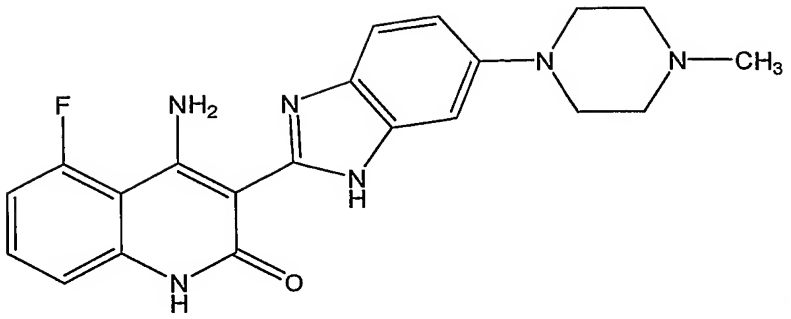


,

wherein,

R^a is selected from H or straight or branched chain alkyl groups having from 1 to 6 carbon atoms.

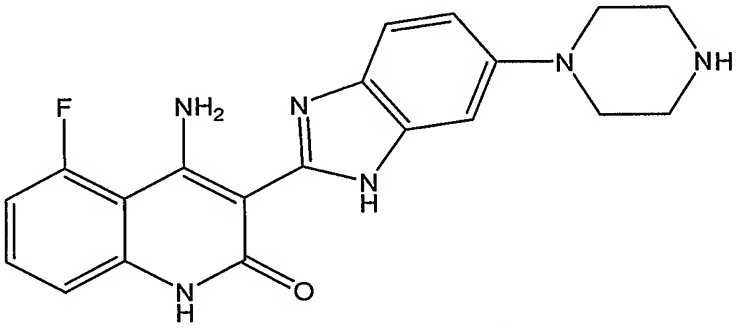
[0115] In some embodiments, where the compound of Structure I is a compound of Structure II, R^a is a methyl group, and the compound of Structure II is a compound of Structure IIA



IIA

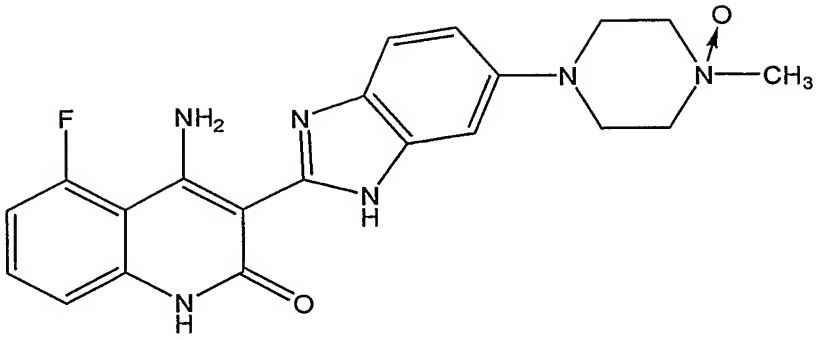
[0116] In some specific embodiments, the pharmaceutically acceptable salt of the compound of Structure IIA, the pharmaceutically acceptable salt of the tautomer, or the mixture thereof is administered to the subject, and the salt is a lactate salt.

[0117] In some embodiments, where the compound of Structure I is a compound of Structure II, R^a is a H, and the compound of Structure II is a compound of Structure IIB



IIB

[0118] In some embodiments, where the compound of Structure I is a compound of Structure II, R^a is a methyl group, and the compound of Structure II is a compound of Structure IIC



IIC

[0119] The compounds of any of the embodiments may be used to prepare medicaments or pharmaceutical formulations for use in any of the methods of the invention.

[0120] Pharmaceutical formulations for use with the invention may include any of the compounds, tautomers, or salts of any of the embodiments described above in combination with a pharmaceutically acceptable carrier such as those described herein.

[0121] The instant invention also provides for compositions which may be prepared by mixing one or more compounds of the instant invention, or pharmaceutically acceptable salts tautomers thereof, or mixtures thereof with pharmaceutically acceptable carriers, excipients, binders, diluents or the like to treat or ameliorate disorders related to metastacized tumors. The compositions of the inventions may be used to create formulations for use in any of the methods of the invention. Such compositions can be in the form of, for example, granules, powders, tablets, capsules, syrup, suppositories, injections, emulsions, elixirs, suspensions or solutions. The instant compositions can be formulated for various routes of administration, for example, by oral administration, by nasal administration, by rectal administration, subcutaneous injection, intravenous injection, intramuscular injections, or intraperitoneal injection. The following dosage forms are given by way of example and should not be construed as limiting the instant invention.

[0122] For oral, buccal, and sublingual administration, powders, suspensions, granules, tablets, pills, capsules, gelcaps, and caplets are acceptable as solid dosage

forms. These can be prepared, for example, by mixing one or more compounds of the instant invention, pharmaceutically acceptable salts, tautomers, or mixtures thereof, with at least one additive such as a starch or other additive. Suitable additives are sucrose, lactose, cellulose sugar, mannitol, maltitol, dextran, starch, agar, alginates, chitins, chitosans, pectins, tragacanth gum, gum arabic, gelatins, collagens, casein, albumin, synthetic or semi-synthetic polymers or glycerides. Optionally, oral dosage forms can contain other ingredients to aid in administration, such as an inactive diluent, or lubricants such as magnesium stearate, or preservatives such as paraben or sorbic acid, or anti-oxidants such as ascorbic acid, tocopherol or cysteine, a disintegrating agent, binders, thickeners, buffers, sweeteners, flavoring agents or perfuming agents. Tablets and pills may be further treated with suitable coating materials known in the art.

[0123] Liquid dosage forms for oral administration may be in the form of pharmaceutically acceptable emulsions, syrups, elixirs, suspensions, and solutions, which may contain an inactive diluent, such as water. Pharmaceutical formulations and medicaments may be prepared as liquid suspensions or solutions using a sterile liquid, such as, but not limited to, an oil, water, an alcohol, and combinations of these. Pharmaceutically suitable surfactants, suspending agents, emulsifying agents, may be added for oral or parenteral administration.

[0124] As noted above, suspensions may include oils. Such oil include, but are not limited to, peanut oil, sesame oil, cottonseed oil, corn oil and olive oil. Suspension preparation may also contain esters of fatty acids such as ethyl oleate, isopropyl myristate, fatty acid glycerides and acetylated fatty acid glycerides. Suspension formulations may include alcohols, such as, but not limited to, ethanol, isopropyl alcohol, hexadecyl alcohol, glycerol and propylene glycol. Ethers, such as but not limited to, poly(ethyleneglycol), petroleum hydrocarbons such as mineral oil and petrolatum; and water may also be used in suspension formulations.

[0125] For nasal administration, the pharmaceutical formulations and medicaments may be a spray or aerosol containing an appropriate solvent(s) and optionally other compounds such as, but not limited to, stabilizers, antimicrobial

agents, antioxidants, pH modifiers, surfactants, bioavailability modifiers and combinations of these. A propellant for an aerosol formulation may include compressed air, nitrogen, carbon dioxide, or a hydrocarbon based low boiling solvent.

[0126] Injectable dosage forms generally include aqueous suspensions or oil suspensions which may be prepared using a suitable dispersant or wetting agent and a suspending agent. Injectable forms may be in solution phase or in the form of a suspension, which is prepared with a solvent or diluent. Acceptable solvents or vehicles include sterilized water, Ringer's solution, or an isotonic aqueous saline solution. Alternatively, sterile oils may be employed as solvents or suspending agents. Preferably, the oil or fatty acid is non-volatile, including natural or synthetic oils, fatty acids, mono-, di- or tri-glycerides.

[0127] For injection, the pharmaceutical formulation and/or medicament may be a powder suitable for reconstitution with an appropriate solution as described above. Examples of these include, but are not limited to, freeze dried, rotary dried or spray dried powders, amorphous powders, granules, precipitates, or particulates. For injection, the formulations may optionally contain stabilizers, pH modifiers, surfactants, bioavailability modifiers and combinations of these.

[0128] For rectal administration, the pharmaceutical formulations and medicaments may be in the form of a suppository, an ointment, an enema, a tablet or a cream for release of compound in the intestines, sigmoid flexure and/or rectum. Rectal suppositories are prepared by mixing one or more compounds of the instant invention, or pharmaceutically acceptable salts or tautomers of the compound, with acceptable vehicles, for example, cocoa butter or polyethylene glycol, which is present in a solid phase at normal storing temperatures, and present in a liquid phase at those temperatures suitable to release a drug inside the body, such as in the rectum. Oils may also be employed in the preparation of formulations of the soft gelatin type and suppositories. Water, saline, aqueous dextrose and related sugar solutions, and glycerols may be employed in the preparation of suspension formulations which may also contain suspending agents such as pectins, carbomers, methyl cellulose,

hydroxypropyl cellulose or carboxymethyl cellulose, as well as buffers and preservatives.

[0129] Besides those representative dosage forms described above, pharmaceutically acceptable excipients and carriers are generally known to those skilled in the art and are thus included in the instant invention. Such excipients and carriers are described, for example, in "Remingtons Pharmaceutical Sciences" Mack Pub. Co., New Jersey (1991), which is incorporated herein by reference in its entirety for all purposes as if fully set forth herein.

[0130] The formulations of the invention may be designed to be short-acting, fast-releasing, long-acting, and sustained-releasing as described below. Thus, the pharmaceutical formulations may also be formulated for controlled release or for slow release.

[0131] The instant compositions may also comprise, for example, micelles or liposomes, or some other encapsulated form, or may be administered in an extended release form to provide a prolonged storage and/or delivery effect. Therefore, the pharmaceutical formulations and medicaments may be compressed into pellets or cylinders and implanted intramuscularly or subcutaneously as depot injections or as implants such as stents. Such implants may employ known inert materials such as silicones and biodegradable polymers.

[0132] Specific dosages may be adjusted depending on conditions of disease, the age, body weight, general health conditions, sex, and diet of the subject, dose intervals, administration routes, excretion rate, and combinations of drugs. Any of the above dosage forms containing effective amounts are well within the bounds of routine experimentation and therefore, well within the scope of the instant invention.

[0133] A therapeutically effective dose may vary depending upon the route of administration and dosage form. The preferred compound or compounds of the instant invention is a formulation that exhibits a high therapeutic index. The therapeutic index is the dose ratio between toxic and therapeutic effects which can be expressed as the ratio between LD_{50} and ED_{50}. The LD_{50} is the dose lethal to 50% of

the population and the ED_{50} is the dose therapeutically effective in 50% of the population. The LD_{50} and ED_{50} are determined by standard pharmaceutical procedures in animal cell cultures or experimental animals.

[0134] Pharmaceutical formulations and medicaments according to the invention include the compound of Structure I or the tautomers, salts, or mixtures thereof in combination with a pharmaceutically acceptable carrier. Thus, the compounds of the invention may be used to prepare medicaments and pharmaceutical formulations. Such medicaments and pharmaceutical formulations may be used in any of the methods of treatment described herein.

[0135] The compounds and formulations of the present invention are particularly suitable for use in combination therapy. Kinase inhibitors for use as anticancer agents in conjunction with the methods or compositions of the present invention include inhibitors of Epidermal Growth Factor Receptor (EGFR) kinases such as small molecule quinazolines, for example gefitinib (US 5457105, US 5616582, and US 5770599), ZD-6474 (WO 01/32651), erlotinib (Tarceva®, US 5,747,498 and WO 96/30347), and lapatinib (US 6,727,256 and WO 02/02552). Kinase inhibitors for use as anticancer agents in conjunction with the methods of compositions of the present invention also include inibitors of Vascular Endothelial Growth Factor Receptor (VEGFR) kinase inhibitor such as, but not limited to, SU-11248 (WO 01/60814), SU 5416 (US 5,883,113 and WO 99/61422), SU 6668 (US 5,883,113 and WO 99/61422), CHIR-258 (US 6,605,617 and US 6,774,237), vatalanib or PTK-787 (US 6,258,812), VEGF-Trap (WO 02/57423), B43-Genistein (WO-09606116), fenretinide (retinoic acid p-hydroxyphenylamine) (US 4,323,581), IM-862 (WO 02/62826), bevacizumab or Avastin® (WO 94/10202), KRN-951, 3-[5-(methylsulfonylpiperadine methyl)-indolyl]-quinolone, AG-13736 and AG-13925, pyrrolo[2,1-f][1,2,4]triazines, ZK-304709, Veglin®, VMDA-3601, EG-004, CEP-701 (US 5,621,100), and Cand5 (WO 04/09769).

[0136] The compounds of the invention may be used to treat a variety of subjects. Suitable subjects include animals such as mammals and humans. Suitable mammals include, but are not limited to, primates such as, but not limited to lemurs,

apes, and monkeys; rodents such as rats, mice, and guinea pigs; rabbits and hares; cows; horses; pigs; goats; sheep; marsupials; and carnivores such as felines, canines, and ursines. In some embodiments, the subject or patient is a human. In other embodiments, the subject or patient is a rodent such as a mouse or a rat. In some embodiments, the subject or patient is an animal other than a human and in some such embodiments, the subject or patient is a mammal other than a human.

Purification and Characterization of Compounds

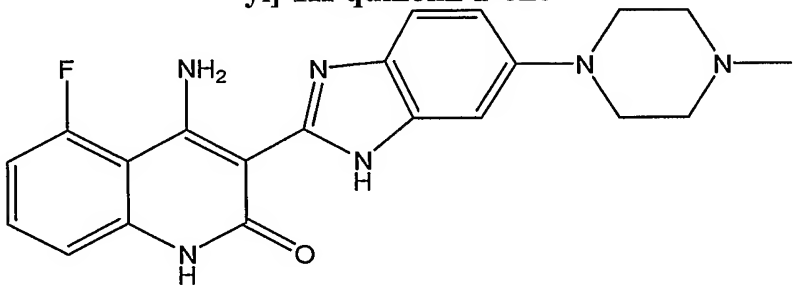
[0137] Compounds of the present invention were characterized by high performance liquid chromatography (HPLC) using a Waters Millenium chromatography system with a 2690 Separation Module (Milford, Massachusetts). The analytical columns were Alltima C-18 reversed phase, 4.6 x 250 mm from Alltech (Deerfield, Illinois). A gradient elution was used, typically starting with 5% acetonitrile/95% water and progressing to 100% acetonitrile over a period of 40 minutes. All solvents contained 0.1% trifluoroacetic acid (TFA). Compounds were detected by ultraviolet light (UV) absorption at either 220 or 254 nm. HPLC solvents were from Burdick and Jackson (Muskegan, Michigan), or Fisher Scientific (Pittsburg, Pennsylvania). In some instances, purity was assessed by thin layer chromatography (TLC) using glass or plastic backed silica gel plates, such as, for example, Baker-Flex Silica Gel 1B2-F flexible sheets. TLC results were readily detected visually under ultraviolet light, or by employing well known iodine vapor and other various staining techniques.

[0138] Mass spectrometric analysis was performed on one of two LCMS instruments: a Waters System (Alliance HT HPLC and a Micromass ZQ mass spectrometer; Column: Eclipse XDB-C18, 2.1 x 50 mm; Solvent system: 5-95% acetonitrile in water with 0.05% TFA; Flow rate 0.8 mL/minute; Molecular weight range 150-850; Cone Voltage 20 V; Column temperature 40°C) or a Hewlett Packard System (Series 1100 HPLC; Column: Eclipse XDB-C18, 2.1 x 50 mm; Solvent system: 1-95% acetonitrile in water with 0.05% TFA; Flow rate 0.4 mL/minute; Molecular weight range 150-850; Cone Voltage 50 V; Column temperature 30°C). All masses are reported as those of the protonated parent ions.

[0139] GCMS analysis was performed on a Hewlet Packard instrument (HP6890 Series gas chromatograph with a Mass Selective Detector 5973; Injector volume: 1 μL; Initial column temperature: 50°C; Final column temperature: 250°C; Ramp time: 20 minutes; Gas flow rate: 1 mL/minute; Column: 5% Phenyl Methyl Siloxane, Model #HP 190915-443, Dimensions: 30.0 m x 25 μm x 0.25 μm).

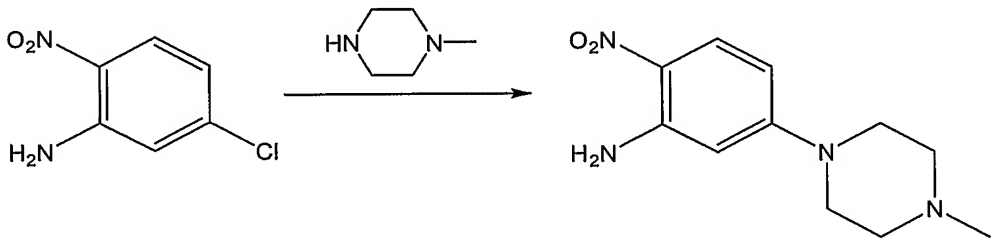
[0140] Preparative separations were carried out using either a Flash 40 chromatography system and KP-Sil, 60A (Biotage, Charlottesville, Virginia), or by HPLC using a C-18 reversed phase column. Typical solvents employed for the Flash 40 Biotage system were dichloromethane, methanol, ethyl acetate, hexane and triethyl amine. Typical solvents employed for the reverse phase HPLC were varying concentrations of acetonitrile and water with 0.1% trifluoroacetic acid.

Synthesis of 4-Amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-1H-quinolin-2-one



A. Synthesis of 5-(4-Methyl-piperazin-1-yl)-2-nitroaniline

Procedure A



[0141] 5-Chloro-2-nitroaniline (500 g, 2.898 mol) and 1-methyl piperazine (871 g, 8.693 mol) were placed in a 2000 mL flask fitted with a condenser and purged with N_2. The flask was placed in an oil bath at 100°C and heated until the 5-chloro-2-nitroaniline was completely reacted (typically overnight) as determined by HPLC. After HPLC confirmed the disappearance of the 5-chloro-2-nitroaniline, the reaction

mixture was poured directly (still warm) into 2500 mL of room temperature water with mechanical stirring. The resulting mixture was stirred until it reached room temperature and then it was filtered. The yellow solid thus obtained was added to 1000 mL of water and stirred for 30 minutes. The resulting mixture was filtered, and the resulting solid was washed with TBME (500 mL, 2X) and then was dried under vacuum for one hour using a rubber dam. The resulting solid was transferred to a drying tray and dried in a vacuum oven at 50°C to a constant weight to yield 670 g (97.8%) of the title compound as a yellow powder.

Procedure B

[0142] 5-Chloro-2-nitroaniline (308.2 g, 1.79 mol) was added to a 4-neck 5000 mL round bottom flask fitted with an overhead stirrer, condenser, gas inlet, addition funnel, and thermometer probe. The flask was then purged with N_2. 1-Methylpiperazine (758.1 g, 840 mL, 7.57 mol) and 200 proof ethanol (508 mL) were added to the reaction flask with stirring. The flask was again purged with N_2, and the reaction was maintained under N_2. The flask was heated in a heating mantle to an internal temperature of 97°C (+/- 5°C) and maintained at that temperature until the reaction was complete (typically about 40 hours) as determined by HPLC. After the reaction was complete, heating was discontinued and the reaction was cooled to an internal temperature of about 20°C to 25°C with stirring, and the reaction was stirred for 2 to 3 hours. Seed crystals (0.20 g, 0.85 mmol) of 5-(4-methyl-piperazin-1-yl)-2-nitroaniline were added to the reaction mixture unless precipitation had already occurred. Water (2,450 mL) was added to the stirred reaction mixture over a period of about one hour while the internal temperature was maintained at a temperature ranging from about 20°C to 30°C. After the addition of water was complete, the resulting mixture was stirred for about one hour at a temperature of 20°C to 30°C. The resulting mixture was then filtered, and the flask and filter cake were washed with water (3 x 2.56 L). The golden yellow solid product was dried to a constant weight of 416 g (98.6% yield) under vacuum at about 50°C in a vacuum oven.

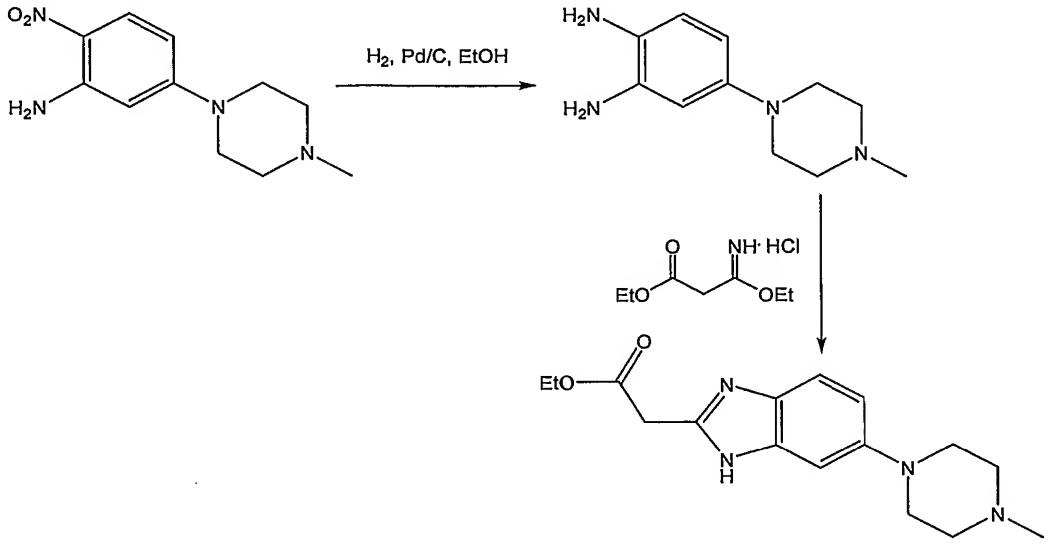
Procedure C

[0143] 5-Chloro-2-nitroaniline (401 g, 2.32 mol) was added to a 4-neck 12 L round bottom flask fitted with an overhead stirrer, condenser, gas inlet, addition

funnel, and thermometer probe. The flask was then purged with N_2. 1-Methylpiperazine (977 g, 1.08 L, 9.75 mol) and 100% ethanol (650 mL) were added to the reaction flask with stirring. The flask was again purged with N_2, and the reaction was maintained under N_2. The flask was heated in a heating mantle to an internal temperature of 97°C (+/- 5°C) and maintained at that temperature until the reaction was complete (typically about 40 hours) as determined by HPLC. After the reaction was complete, heating was discontinued and the reaction was cooled to an internal temperature of about 80°C with stirring, and water (3.15 L) was added to the mixture via an addition funnel over the period of 1 hour while the internal temperature was maintained at 82°C (+/- 3°C). After water addition was complete, heating was discontinued and the reaction mixture was allowed to cool over a period of no less than 4 hours to an internal temperature of 20-25°C. The reaction mixture was then stirred for an additional hour at an internal temperature of 20-30°C. The resulting mixture was then filtered, and the flask and filter cake were washed with water (1 x 1 L), 50% ethanol (1 x 1L), and 95% ethanol (1 x 1L). The golden yellow solid product was placed in a drying pan and dried to a constant weight of 546 g (99% yield) under vacuum at about 50°C in a vacuum oven.

B. Synthesis of [6-(4-Methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-acetic acid ethyl ester

Procedure A



[0144] A 5000 mL, 4-neck flask was fitted with a stirrer, thermometer, condenser, and gas inlet/outlet. The equipped flask was charged with 265.7 g (1.12 mol. 1.0 eq) of 5-(4-methyl-piperazin-1-yl)-2-nitroaniline and 2125 mL of 200 proof EtOH. The resulting solution was purged with N_2 for 15 minutes. Next, 20.0 g of 5% Pd/C (50% H_2O w/w) was added. The reaction was vigorously stirred at 40-50°C (internal temperature) while H_2 was bubbled through the mixture. The reaction was monitored hourly for the disappearance of 5-(4-methyl-piperazin-1-yl)-2-nitroaniline by HPLC. The typical reaction time was 6 hours.

[0145] After all the 5-(4-methyl-piperazin-1-yl)-2-nitroaniline had disappeared from the reaction, the solution was purged with N_2 for 15 minutes. Next, 440.0 g (2.25 mol) of ethyl 3-ethoxy-3-iminopropanoate hydrochloride was added as a solid. The reaction was stirred at 40-50°C (internal temperature) until the reaction was complete. The reaction was monitored by following the disappearance of the diamino compound by HPLC. The typical reaction time was 1-2 hours. After the reaction was complete, it was cooled to room temperature and filtered through a pad of Celite filtering material. The Celite filtering material was washed with absolute EtOH (2 x 250 mL), and the filtrate was concentrated under reduced pressure providing a thick brown/orange oil. The resulting oil was taken up in 850 mL of a

0.37% HCl solution. Solid NaOH (25 g) was then added in one portion, and a precipitate formed. The resulting mixture was stirred for 1 hour and then filtered. The solid was washed with H_2O (2 x 400 mL) and dried at 50°C in a vacuum oven providing 251.7 g (74.1%) of [6-(4-methyl-piperazin-1-yl)-1H-benzoimidazol-2-yl]-acetic acid ethyl ester as a pale yellow powder.

Procedure B

[0146] A 5000 mL, 4-neck jacketed flask was fitted with a mechanical stirrer, condenser, temperature probe, gas inlet, and oil bubbler. The equipped flask was charged with 300 g (1.27 mol) of 5-(4-methyl-piperazin-1-yl)-2-nitroaniline and 2400 mL of 200 proof EtOH (the reaction may be and has been conducted with 95% ethanol and it is not necessary to use 200 proof ethanol for this reaction). The resulting solution was stirred and purged with N_2 for 15 minutes. Next, 22.7 g of 5% Pd/C (50% H_2O w/w) was added to the reaction flask. The reaction vessel was purged with N_2 for 15 minutes. After purging with N_2, the reaction vessel was purged with H_2 by maintaining a slow, but constant flow of H_2 through the flask. The reaction was stirred at 45-55°C (internal temperature) while H_2 was bubbled through the mixture until the 5-(4-methyl-piperazin-1-yl)-2-nitroaniline was completely consumed as determined by HPLC. The typical reaction time was 6 hours.

[0147] After all the 5-(4-methyl-piperazin-1-yl)-2-nitroaniline had disappeared from the reaction, the solution was purged with N_2 for 15 minutes. The diamine intermediate is air sensitive so care was taken to avoid exposure to air. 500 g (2.56 mol) of ethyl 3-ethoxy-3-iminopropanoate hydrochloride was added to the reaction mixture over a period of about 30 minutes. The reaction was stirred at 45-55°C (internal temperature) under N_2 until the diamine was completely consumed as determined by HPLC. The typical reaction time was about 2 hours. After the reaction was complete, the reaction was filtered while warm through a pad of Celite. The reaction flask and Celite were then washed with 200 proof EtOH (3 x 285 mL). The filtrates were combined in a 5000 mL flask, and about 3300 mL of ethanol was removed under vacuum producing an orange oil. Water (530 mL) and then 1M HCL (350 mL) were added to the resulting oil, and the resulting mixture was stirred. The

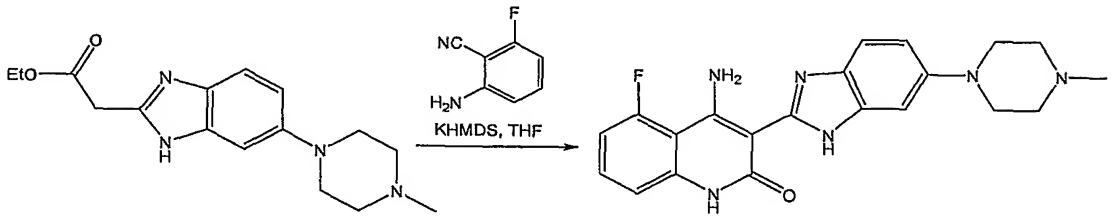
resulting solution was vigorously stirred while 30% NaOH (200 mL) was added over a period of about 20 minutes maintaining the internal temperature at about 25-30°C while the pH was brought to between 9 and 10. The resulting suspension was stirred for about 4 hours while maintaining the internal temperature at about 20-25°C. The resulting mixture was filtered, and the filter cake was washed with H_2O (3 x 300 mL). The collected solid was dried to a constant weight at 50°C under vacuum in a vacuum oven providing 345.9 g (90.1%) of [6-(4-methyl-piperazin-1-yl)-1H-benzoimidazol-2-yl]-acetic acid ethyl ester as a pale yellow powder. In an alternative work up procedure, the filtrates were combined and the ethanol was removed under vacuum until at least about 90% had been removed. Water at a neutral pH was then added to the resulting oil, and the solution was cooled to about 0°C. An aqueous 20% NaOH solution was then added slowly with rapid stirring to bring the pH up to 9.2 (read with pH meter). The resulting mixture was then filtered and dried as described above. The alternative work up procedure provided the light tan to light yellow product in yields as high as 97%.

Method for Reducing Water Content of [6-(4-Methyl-piperazin-1-yl)-1H-benzoimidazol-2-yl]-acetic acid ethyl ester

[0148] [6-(4-Methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-acetic acid ethyl ester (120.7 grams) that had been previously worked up and dried to a water content of about 8-9% H_2O was placed in a 2000 mL round bottom flask and dissolved in absolute ethanol (500 mL). The amber solution was concentrated to a thick oil using a rotary evaporator with heating until all solvent was removed. The procedure was repeated two more times. The thick oil thus obtained was left in the flask and placed in a vacuum oven heated at 50°C overnight. Karl Fisher analysis results indicated a water content of 5.25%. The lowered water content obtained by this method provided increased yields in the procedure of the following Example. Other solvents such as toluene and THF may be used in place of the ethanol for this drying process.

C. Synthesis of 4-Amino-5-fluoro-3-[6-(4-methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-1H-quinolin-2-one

Procedure A



[0149] [6-(4-Methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-acetic acid ethyl ester (250 g, 820 mmol) (dried with ethanol as described above) was dissolved in THF (3800 mL) in a 5000 mL flask fitted with a condenser, mechanical stirrer, temperature probe, and purged with argon. 2-Amino-6-fluoro-benzonitrile (95.3 g, 700 mmol) was added to the solution, and the internal temperature was raised to 40°C. When all the solids had dissolved and the solution temperature had reached 40°C, solid KHMDS (376.2 g, 1890 mmol) was added over a period of 5 minutes. When addition of the potassium base was complete, a heterogeneous yellow solution was obtained, and the internal temperature had risen to 62°C. After a period of 60 minutes, the internal temperature decreased back to 40°C, and the reaction was determined to be complete by HPLC (no starting material or uncyclized intermediate was present). The thick reaction mixture was then quenched by pouring it into H_2O (6000 mL) and stirring the resulting mixture until it had reached room temperature. The mixture was then filtered, and the filter pad was washed with water (1000 mL 2X). The bright yellow solid was placed in a drying tray and dried in a vacuum oven at 50°C overnight providing 155.3 g (47.9%) of the desired 4-amino-5-fluoro-3-[6-(4-methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-1H-quinolin-2-one.

Procedure B

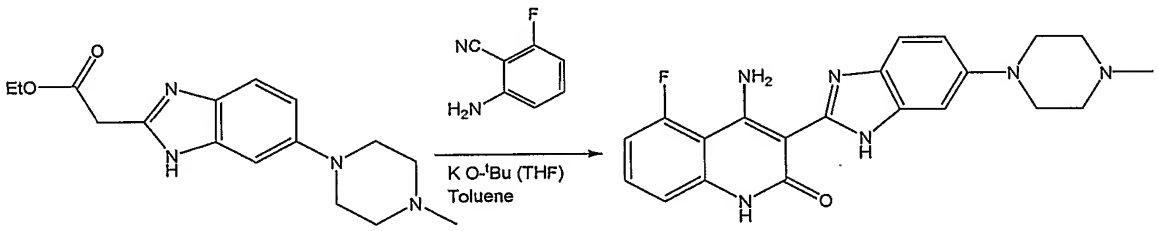
[0150] A 5000 mL 4-neck jacketed flask was equipped with a distillation apparatus, a temperature probe, a N_2 gas inlet, an addition funnel, and a mechanical stirrer. [6-(4-Methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-acetic acid ethyl ester (173.0 g, 570 mmol) was charged into the reactor, and the reactor was purged with N_2 for 15 minutes. Dry THF (2600 mL) was then charged into the flask with stirring. After all the solid had dissolved, solvent was removed by distillation (vacuum or

atmospheric (the higher temperature helps to remove the water) using heat as necessary. After 1000 mL of solvent had been removed, distillation was stopped and the reaction was purged with N_2. 1000 mL of dry THF was then added to the reaction vessel, and when all solid was dissolved, distillation (vacuum or atmospheric) was again conducted until another 1000 mL of solvent had been removed. This process of adding dry THF and solvent removal was repeated at least 4 times (on the 4^{th} distillation, 60% of the solvent is removed instead of just 40% as in the first 3 distillations) after which a 1 mL sample was removed for Karl Fischer analysis to determine water content. If the analysis showed that the sample contained less than 0.20% water, then reaction was continued as described in the next paragraph. However, if the analysis showed more than 0.20% water, then the drying process described above was continued until a water content of less than 0.20% was achieved.

[0151] After a water content of less than or about 0.20% was achieved using the procedure described in the previous paragraph, the distillation apparatus was replaced with a reflux condenser, and the reaction was charged with 2-amino-6-fluoro-benzonitrile (66.2 g, 470 mmol) (in some procedures 0.95 equivalents is used). The reaction was then heated to an internal temperature of 38-42°C. When the internal temperature had reached 38-42°C, KHMDS solution (1313 g, 1.32 mol, 20% KHMDS in THF) was added to the reaction via the additional funnel over a period of 5 minutes maintaining the internal temperature at about 38-50°C during the addition. When addition of the potassium base was complete, the reaction was stirred for 3.5 to 4.5 hours (in some examples it was stirred for 30 to 60 minutes and the reaction may be complete within that time) while maintaining the internal temperature at from 38-42°C. A sample of the reaction was then removed and analyzed by HPLC. If the reaction was not complete, additional KHMDS solution was added to the flask over a period of 5 minutes and the reaction was stirred at 38-42°C for 45-60 minutes (the amount of KHMDS solution added was determined by the following: If the IPC ratio is < 3.50, then 125 mL was added; if $10.0 \geq$ IPC ratio ≥ 3.50, then 56 mL was added; if $20.0 \geq$ IPC ratio ≥ 10, then 30 mL was added. The IPC ratio is equal to the area corresponding to 4-amino-5-fluoro-3-[6-(4-methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-1H-quinolin-2-one) divided by the area corresponding to the uncyclized

intermediate). Once the reaction was complete (IPC ratio > 20), the reactor was cooled to an internal temperature of 25-30°C, and water (350 mL) was charged into the reactor over a period of 15 minutes while maintaining the internal temperature at 25-35°C (in one alternative, the reaction is conducted at 40°C and water is added within 5 minutes. The quicker quench reduces the amount of impurity that forms over time). The reflux condenser was then replaced with a distillation apparatus and solvent was removed by distillation (vacuum or atmospheric) using heat as required. After 1500 mL of solvent had been removed, distillation was discontinued and the reaction was purged with N_2. Water (1660 mL) was then added to the reaction flask while maintaining the internal temperature at 20-30°C. The reaction mixture was then stirred at 20-30°C for 30 minutes before cooling it to an internal temperature of 5-10°C and then stirring for 1 hour. The resulting suspension was filtered, and the flask and filter cake were washed with water (3 x 650 mL). The solid thus obtained was dried to a constant weight under vacuum at 50°C in a vacuum oven to provide 103.9 g (42.6% yield) of 4-amino-5-fluoro-3-[6-(4-methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-1H-quinolin-2-one as a yellow powder.

Procedure C



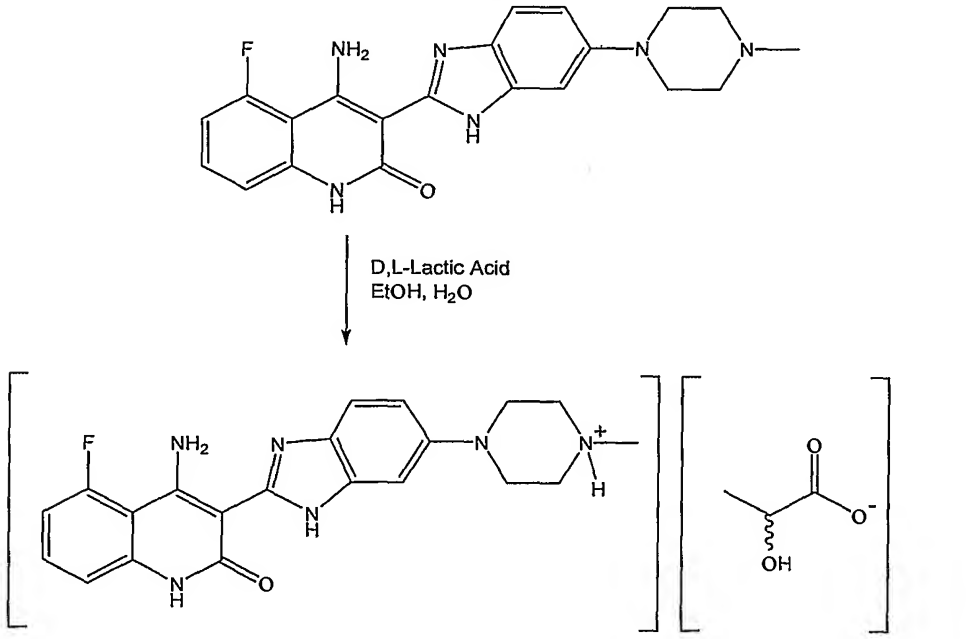
[0152] [6-(4-Methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-acetic acid ethyl ester (608 g, 2.01 mol) (dried) and 2-amino-6-fluoro-benzonitrile (274 g, 2.01 mol) were charged into a 4-neck 12 L flask seated on a heating mantle and fitted with a condenser, mechanical stirrer, gas inlet, and temperature probe. The reaction vessel was purged with N_2, and toluene (7.7 L) was charged into the reaction mixture while it was stirred. The reaction vessel was again purged with N_2 and maintained under N_2. The internal temperature of the mixture was raised until a temperature of 63°C (+/- 3°C) was achieved. The internal temperature of the mixture was maintained at 63°C (+/- 3°C) while approximately 2.6 L of toluene was distilled from the flask

under reduced pressure (380 +/- 10 torr, distilling head t = 40°C (+/- 10°C) (Karl Fischer analysis was used to check the water content in the mixture. If the water content was greater than 0.03%, then another 2.6 L of toluene was added and distillation was repeated. This process was repeated until a water content of less than 0.03% was achieved). After a water content of less than 0.03% was reached, heating was discontinued, and the reaction was cooled under N_2 to an internal temperature of 17-19°C. Potassium t-butoxide in THF (20% in THF; 3.39 kg, 6.04 moles potassium t-butoxide) was then added to the reaction under N_2 at a rate such that the internal temperature of the reaction was kept below 20°C. After addition of the potassium t-butoxide was complete, the reaction was stirred at an internal temperature of less than 20°C for 30 minutes. The temperature was then raised to 25°C, and the reaction was stirred for at least 1 hour. The temperature was then raised to 30°C, and the reaction was stirred for at least 30 minutes. The reaction was then monitored for completion using HPLC to check for consumption of the starting materials (typically in 2-3 hours, both starting materials were consumed (less than 0.5% by area % HPLC)). If the reaction was not complete after 2 hours, another 0.05 equivalents of potassium t-butoxide was added at a time, and the process was completed until HPLC showed that the reaction was complete. After the reaction was complete, 650 mL of water was added to the stirred reaction mixture. The reaction was then warmed to an internal temperature of 50°C and the THF was distilled away (about 3 L by volume) under reduced pressure from the reaction mixture. Water (2.6 L) was then added dropwise to the reaction mixture using an addition funnel. The mixture was then cooled to room temperature and stirred for at least 1 hour. The mixture was then filtered, and the filter cake was washed with water (1.2 L), with 70% ethanol (1.2 L), and with 95% ethanol (1.2 L). The bright yellow solid was placed in a drying tray and dried in a vacuum oven at 50°C until a constant weight was obtained providing 674 g (85.4%) of the desired 4-amino-5-fluoro-3-[6-(4-methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-1H-quinolin-2-one.

Purification of 4-Amino-5-fluoro-3-[6-(4-methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-1H-quinolin-2-one

[0153] A 3000 mL 4-neck flask equipped with a condenser, temperature probe, N_2 gas inlet, and mechanical stirrer was placed in a heating mantle. The flask was then charged with 4-amino-5-fluoro-3-[6-(4-methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-1H-quinolin-2-one (101.0 g, 0.26 mol), and the yellow solid was suspended in 95% ethanol (1000 mL) and stirred. In some cases an 8:1 solvent ratio is used. The suspension was then heated to a gentle reflux (temperature of about 76°C) with stirring over a period of about 1 hour. The reaction was then stirred for 45-75 minutes while refluxed. At this point, the heat was removed from the flask and the suspension was allowed to cool to a temperature of 25-30°C. The suspension was then filtered, and the filter pad was washed with water (2 x 500 mL). The yellow solid was then placed in a drying tray and dried in a vacuum oven at 50°C until a constant weight was obtained (typically 16 hours) to obtain 97.2 g (96.2%) of the purified product as a yellow powder.

D. Preparation of Lactic Acid Salt of 4-Amino-5-fluoro-3-[6-(4-methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-1H-quinolin-2-one



[0154] A 3000 mL 4-necked jacketed flask was fitted with a condenser, a temperature probe, a N_2 gas inlet, and a mechanical stirrer. The reaction vessel was

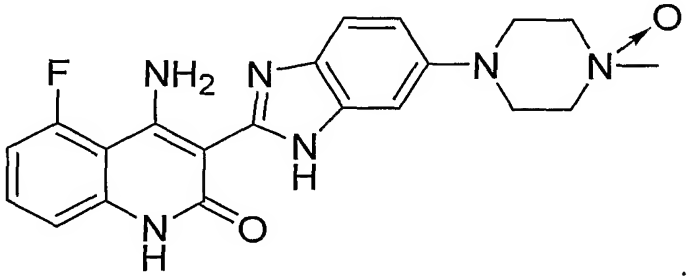
purged with N_2 for at least 15 minutes and then charged with 4-amino-5-fluoro-3-[6-(4-methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-1H-quinolin-2-one (484 g, 1.23 mol). A solution of D,L-Lactic acid (243.3 g, 1.72 mol of monomer-see the following paragraph), water (339 mL), and ethanol (1211 mL) was prepared and then charged to the reaction flask. Stirring was initiated at a medium rate, and the reaction was heated to an internal temperature of 68-72°C. The internal temperature of the reaction was maintained at 68-72°C for 15-45 minutes and then heating was discontinued. The resulting mixture was filtered through a 10-20 micron frit collecting the filtrate in a 12 L flask. The 12 L flask was equipped with an internal temperature probe, a reflux condenser, an addition funnel, a gas inlet an outlet, and an overhead stirrer. The filtrate was then stirred at a medium rate and heated to reflux (internal temperature of about 78°C). While maintaining a gentle reflux, ethanol (3,596 mL) was charged to the flask over a period of about 20 minutes. The reaction flask was then cooled to an internal temperature ranging from about 64-70°C within 15-25 minutes and this temperature was maintained for a period of about 30 minutes. The reactor was inspected for crystals. If no crystals were present, then crystals of the lactic acid salt of 4-amino-5-fluoro-3-[6-(4-methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-1H-quinolin-2-one (484 mg, 0.1 mole %) were added to the flask, and the reaction was stirred at 64-70°C for 30 minutes before again inspecting the flask for crystals. Once crystals were present, stirring was reduced to a low rate and the reaction was stirred at 64-70°C for an additional 90 minutes. The reaction was then cooled to about 0°C over a period of about 2 hours, and the resulting mixture was filtered through a 25-50 micron fritted filter. The reactor was washed with ethanol (484 mL) and stirred until the internal temperature was about 0°C. The cold ethanol was used to wash the filter cake, and this procedure was repeated 2 more times. The collected solid was dried to a constant weight at 50°C under vacuum in a vacuum oven yielding 510.7 g (85.7%) of the crystalline yellow lactic acid salt of 4-amino-5-fluoro-3-[6-(4-methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-1H-quinolin-2-one. A rubber dam or inert conditions were typically used during the filtration process. While the dry solid did not appear to be very hygroscopic, the wet filter cake tends to pick up water and become sticky.

Precautions were taken to avoid prolonged exposure of the wet filter cake to the atmosphere.

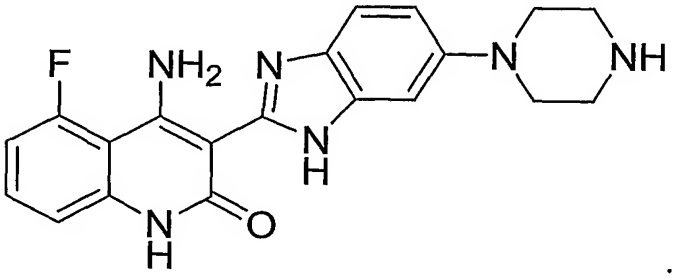
[0155] Commercial lactic acid generally contains about 8-12% w/w water, and contains dimers and trimers in addition to the monomeric lactic acid. The mole ratio of lactic acid dimer to monomer is generally about 1.0:4.7. Commercial grade lactic acid may be used in the process described in the preceding paragraph as the monolactate salt preferentially precipitates from the reaction mixture.

Identification of Metabolites

[0156] Two metabolites of 4-amino-5-fluoro-3-[6-(4-methyl-piperazin-1-yl)-1H-benzimidazol-2-yl]-1H-quinolin-2-one (Compound **1**) have been identified and characterized in pooled rat plasma from a 2 week toxicology study as described in the references incorporated herein. The two identified metabolites were the piperazine N-oxide compound (Compound **2**) and the N-demethylated compound (Compound **3**) shown below.



Compound 2



Compound 3

IC_{50}s of Compounds 1-3

[0157] The kinase activity of a number of protein tyrosine kinases was measured using the procedures described in the various references incorporated herein. Some of these are shown in the following Table..

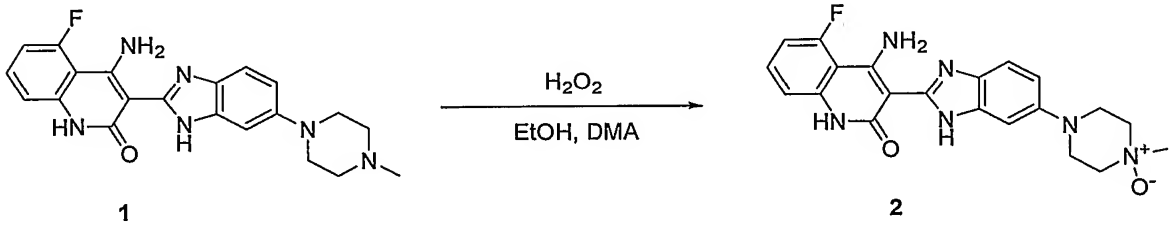
Table. IC_{50}s of Compounds 1-3

Compound	IC_{50} (μM)					
	VEGFR flt	VEGFR flk1	bFGFR	PDGFR	Flt3	c-kit
Compound 1	0.010	0.013	0.008	0.027	0.0001	0.0015
Compound 2	0.004	0.009	0.005	0.010	0.0004	0.0002
Compound 3	0.019	0.012	0.019	0.037	0.0001	0.0002

Synthesis of 4-Amino-5-fluoro-3-[6-(4-methyl-4-oxidopiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one (Compound 2) and 4-Amino-5-fluoro-3-(6-piperazin-1-yl-1H-benzimidazol-2-yl)quinolin-2(1H)-one (Compound 3)

[0158] To confirm the structures of the identified metabolites of Compound 1, the metabolites were independently synthesized.

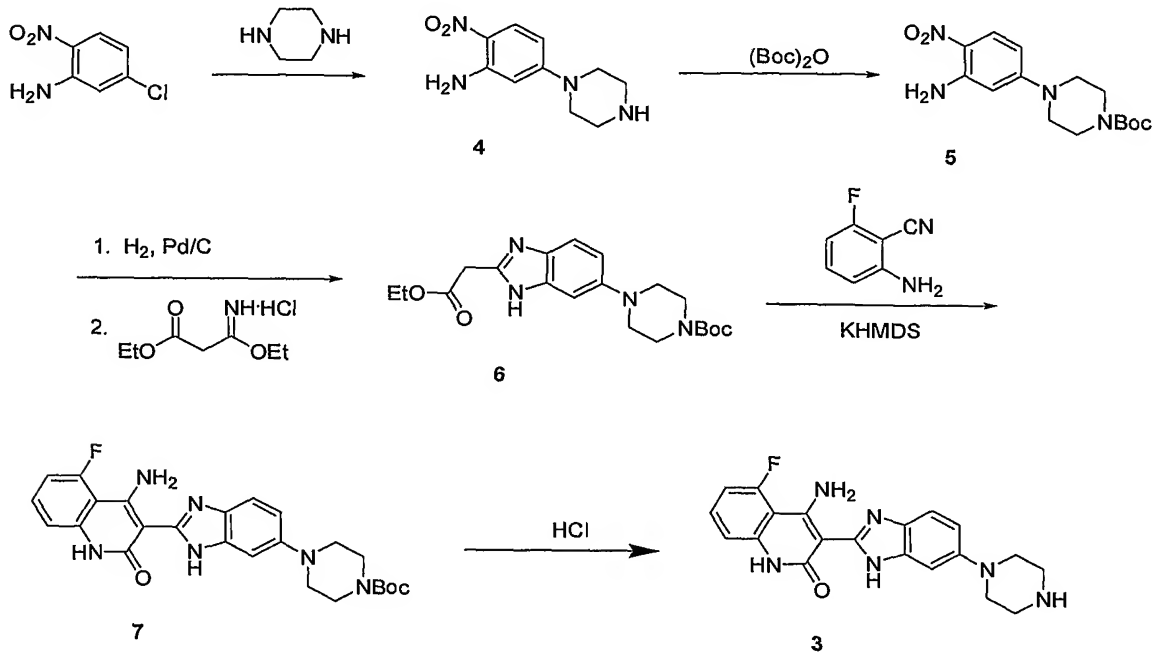
[0159] Compound 2, the N-oxide metabolite of Compound 1, was synthesized as shown in the scheme below. Compound 1 was heated in a mixture of ethanol, dimethylacetamide and hydrogen peroxide. Upon completion of the reaction, Compound 2 was isolated by filtration and washed with ethanol. If necessary, the product could be further purified by column chromatography.



1 2

[0160] Compound 3, the N-desmethyl metabolite of Compound 1, was synthesized as shown in the scheme below. 5-Chloro-2-nitroaniline was treated with piperazine to yield 4 which was subsequently protected with a butyloxycarbonyl

(Boc) group to yield **5**. Reduction of the nitro group followed by condensation with 3-ethoxy-3-iminopropionic acid ethyl ester gave **6**. Condensation of **6** with 6-fluoroanthranilonitrile using potassium hexamethyldisilazide as the base yielded **7**. Crude 7 was treated with aqueous HCl to yield the desired metabolite as a yellow/brown solid after purification.



[0161] To identify plasma biomarkers of 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one treatment, the 4T1 spontaneously metastatic mouse breast tumor model was used, and circulating serum markers were analyzed by ELISA.

[0162] 4T1 breast tumor cells were grown as subcutaneous tumors in BALB/C mice, and treatment (10, 30, 60, 100, and 150 mg/kg) with 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one (Compound 1) were initiated when tumors were approximately 150 mm^3. Mice were dosed orally, daily for 18 days.

[0163] The serum was collected from individual animals after 18 days, and the levels of circulating cell adhesion molecules, soluble ICAM, VCAM, and E-selectin, were measured by ELISA assay.

[0164] Figure 1 is a graph showing the effects of 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one in the 4T1 murine breast tumor model. The growth of subcutaneous tumors was inhibited (40-80% compared to control), liver metastases were completely inhibited, and lung metastases were inhibited by 60-97% after 18 days of dosing. Various data regarding the incidence of metastases is shown in Figure 1 and included in the following Table

Liver Metastases				
Treatment Group (n)	*Incidence of Metastases*	*# of Liver Metastases Mean +/- SD*	*% Inhibition vs. Vehicle*	*P values vs. Vehicle*
Vehicle (water) (9)	8/9	17.9 +/- 15.4	n/a	n/a
10mpk (8)	7/8	22.0 +/- 32.3	0	0.810
30mpk (10)	6/10	3.1 +/- 3.5	83	0.014
60mpk (10)	5/10	0.7 +/- 0.9	94	0.002
100mpk (10)	1/10	4.1 +/- 13.0	77	0.010
150mpk (9)	0/9	0.0 +/- 0.0	100	0.002

[0165] Wells of a Nunc Maxisorb "U" bottom microtiter plate (#449824) were coated with monoclonal capture antibody, rat anti-mouse VCAM-1 (R&D Systems #BCA12), at 5 μg/mL in phosphate buffered saline (PBS), 50 μL/well, and incubated at 37°C for 1 hour. The plates were washed 3 times with wash buffer [PBS containing 0.1% Tween 20 and 1% goat serum (Gibco BRL #16210-072)]. Wells were blocked with 150 μL/well wash buffer and incubated at 37°C for 1 hour. The blocking solution was removed from the wells and the standard (recombinant mouse VCAM-1/Fc Chimera NOS derived R&D Systems #643-VM) and samples were diluted in wash buffer and added to the wells.

[0166] The standard was used at a range of 4000 pg/mL to 31 pg/mL. The serum samples were diluted 1/200 followed by 3-fold serial dilutions. The samples and standards were added at 50 μL/well and incubated at 37°C for 1 hour. The plates were washed three times and incubated at 37°C for 1 hour with the primary antibody (biotinylated goat anti-mouse VCAM-1, R&D Systems #BAF643) diluted 1/200 in wash buffer, 50 μL/well. The plates were washed as described above and incubated at

37°C for 1 hour with stepavidin-HRP (R&D Systems #DY998) 1/200 in PBS/1% goat serum without Tween 20.

[0167] The plates were washed three times with wash buffer and three times with PBS. They were then developed with TMB substrate (Kirkegaard & Perry labs # 50-76-00) 50 μL/well and incubated at room temperature for 10 minutes. The reaction was stopped with the addition of 50 μL/well 4N H_2SO_4, and the plates were read at 450-550 dual wavelength on the Molecular Devices Vmax plate reader.

[0168] Wells of a Nunc Maxisorb "U" bottom microtiter plate (#449824) were coated with monoclonal capture antibody, rat anti-mouse ICAM-1 (R&D Systems #BSA2), at 5 μg/mL in phosphate buffered saline (PBS), 50 μL/well and incubated at 37°C for 1 hour. The plates were washed 3 times with wash buffer [PBS containing 0.1% Tween 20 and 1% Carnation Nonfat Dry Milk]. Wells were blocked with 150 μL/well wash buffer and incubated at 37°C for 1 hour. The blocking solution was removed from the wells and the standard (a pool of serum from mice implanted with KM12L4a or 4T1 tumors) and samples were diluted in wash buffer and added to the wells.

[0169] The standard was used at a dilution range of 1/10-1/1280. The serum samples were diluted 1/15 followed by 3-fold serial dilutions. The samples and standards were added at 50 μL/well and incubated at 37°C for 1 hour. The plates were washed three times and incubated at 37°C for 1 hour with the primary antibody (goat anti-ICAM-1, Santa Cruz Biotechnology #sc-1511) diluted 1/250 in wash buffer, 50 μL/well. The plates were washed as above and incubated at 37°C for 1 hour with 50 μL/well of the secondary antibody (swine anti-goat IgG HRPO labeled, Caltag #G50007) 1/2000 in wash buffer.

[0170] The plates were washed three times with wash buffer and three times with PBS, then developed with TMB substrate (Kirkegaard & Perry labs # 50-76-00) 50 μL/well and incubated at room temperature for 10 minutes. The reaction was stopped with the addition of 50 μL/well 4N H_2SO_4, and the plates were read at 450-550 dual wavelength on the Molecular Devices Vmax plate reader.

[0171] Serum samples were assayed by the R&D Systems Quantikine M, Mouse sE-Selectin Immunoassay kit #MESOO according to the manufacturer's protocol.

In Vivo KM12L4a Human Colon Xenografts

[0172] Female Nu/nu mice (6-8 weeks old, 18-22 grams) were obtained from Charles River Laboratories (Wilmington, MA). Tumor cells (2 x 10^6 KM12L4a) were implanted subcutaneous into the flank of mice and allowed to grow to the desired size before treatment was initiated. Tumor bearing mice were administered with 100 mg/kg of 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one for 7 days, and individual mice were euthanized. The tumors were resected and flash frozen in liquid nitrogen.

Zymography for MMP-2 and MMP-9 Activity

[0173] Resected tumors were lysed in RIPA buffer (1% Nonidet P-40, 0.5% sodium deoxycholate, 0.1% Sodium dodecylsulphate in 1X phosphate buffered saline, pH 7.2) containing protease inhibitors (Roche Molecular Biochemicals) and phosphatase inhibitors (Sigma). 50 μg of total proteins were analyzed by gelatin zymography on 12% SDS polyacrylamide with gelatin substrate. After electrophoresis, gels were washed twice for 15 minutes in 2.5% Triton X-100, incubated overnight at 37°C in 50 mM Tris-HCl and 10 mM $CaCl_2$, pH 7.6, and stained with 0.5% Comassie Blue and destained with 50% methanol.

ELISA

[0174] VEGF-A protein levels in KM12L4a tumor lysates were quantified using a commercially available ELISA kit (R and D Systems, Minneapolis, MN) according to the manufacturer's procedures.

[0175] Analysis of KM12L4a human colon tumors, removed after in vivo administration of 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one, showed reduced VEGF production and decreased MMP-9 activity. These changes were accompanied by decreased tumor cell proliferation

(Ki67), induced apoptosis (increased PARP cleavage and caspase-3) and reduced vascular density (CD31) as seen by antibody immunohistochemistry staining.

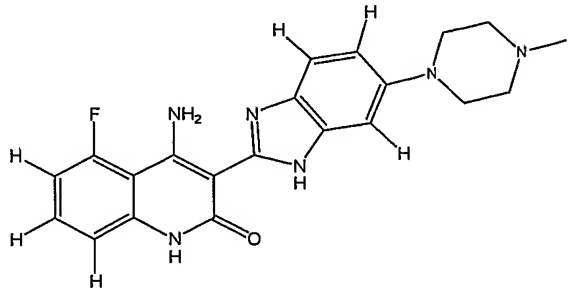
[0176] The preparation of numerous quinolinone benzimidazole compounds useful in inhibiting angiogenesis and vascular endothelial growth factor receptor tyrosine kinases and in inhibiting other tyrosine and serine/threonine kinases including 4-amino-5-fluoro-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one or a tautomer thereof is disclosed in the following documents which are each hereby incorporated by reference in their entireties and for all purposes as if fully set forth herein: U.S. Patent No. 6,605,617; U.S. Patent No. 6,756,383; U.S. Patent Application No. 10/116,117 filed (published on February 6, 2003, as US 2003/0028018 A1); U.S. Patent Application No. 10/644,055 (published on May 13, 2004, U.S. Patent Application No. 2004/0092535); U.S. Patent Application No. 10/983,174; U.S. Patent Application No. 10/706,328 (published on November 4, 2004, as 2004/0220196); U.S. Patent Application No. 10/982,757; and U.S. Patent Application No. 10/982,543..

Western Blot Analysis

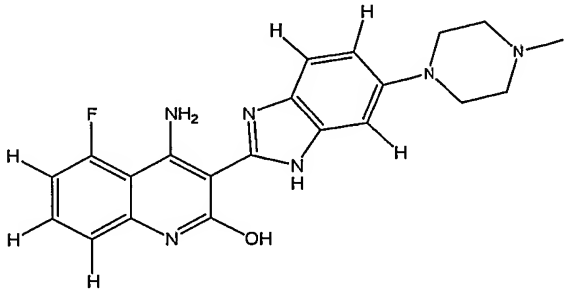
[0177] HUVECs were cultured in EGM (Endothelial Cell Growth Media) with or without 100 nM 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one (Compound 1), and cell lysates were collected at 0, 16, and 24 hours post-treatment. Equal amounts of proteins were loaded in 4-20% SDS-PAGE, and the gels were probed with antibodies against ICAM, VCAM, α5 integrin,, and αv integrin. The equal loading and efficiency was evaluated by probing with anti β-actin antibody. The expression of ICAM, VCAM, and α5 integrin was decreased with 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one treatment in HUVECs *in vitro*.

[0178] It should be understood that the organic compounds according to the invention may exhibit the phenomenon of tautomerism. As the chemical structures within this specification can only represent one of the possible tautomeric forms at a time, it should be understood that the invention encompasses any tautomeric form of

the drawn structure. For example, the compound of Structure IIIB is shown below with one tautomer, Tautomer IIIBa:

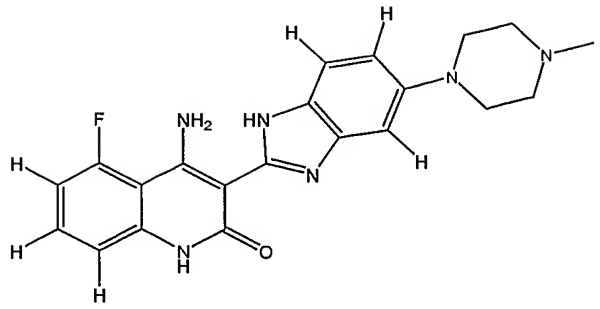


IIIB

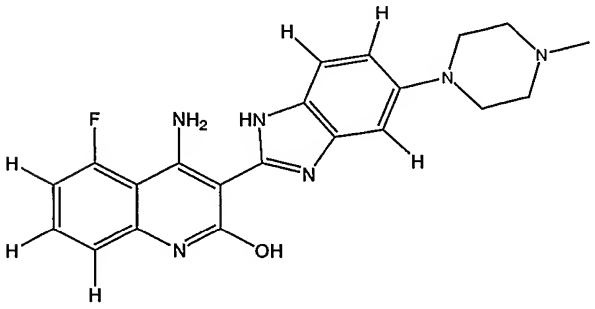


Tautomer IIIBa

[0179] Other tautomers of the compound of Structure IIIB, Tautomer IIIBb and Tautomer IIIBc, are shown below:



Tautomer IIIBb



Tautomer IIIBc

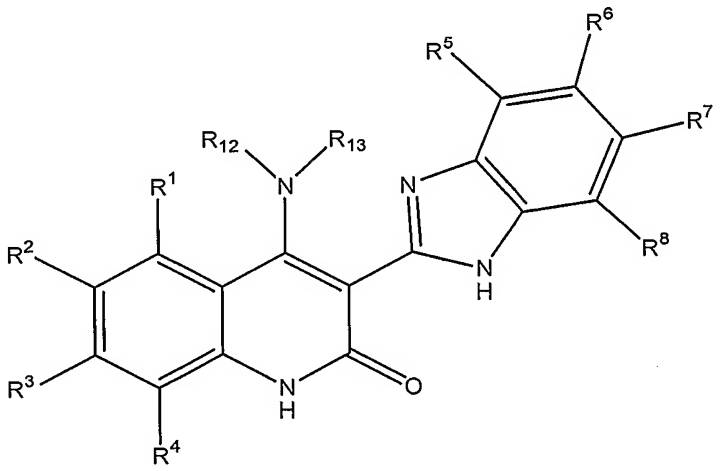
[0180] All documents or references cited herein are hereby incorporated by reference in their entireties and for all purposes as if fully set forth herein.

[0181] It is understood that the invention is not limited to the embodiments set forth herein for illustration, but embraces all such forms thereof as come within the scope of the invention.

CLAIMS

What is claimed is:

1. A method of modulating an inflammatory response and/or reducing cellular adhesion in a subject, comprising: administering to the subject a compound of Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof, wherein the inflammatory response is modulated in the subject and/or cellular adhesion is reduced in the subject after administration, and Structure I has the following formula:



I

wherein,

R^1, R^2, R^3, and R^4 may be the same or different and are independently selected from the group consisting of H, Cl, Br, F, I, -CN, $-NO_2$, -OH, $-OR^{15}$ groups, $-NR^{16}R^{17}$ groups, substituted and unsubstituted amidinyl groups, substituted and unsubstituted guanidinyl groups, substituted and unsubstituted primary, secondary, and tertiary alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted alkenyl groups, substituted and unsubstituted alkynyl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted

(alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylalkyl groups, and -C(=O)R^{18} groups;

R^5, R^6, R^7, and R^8 may be the same or different and are independently selected from the group consisting of H, Cl, Br, F, I, -NO_2, -OH, -OR^{19} groups, -$NR^{20}R^{21}$ groups, -SH, -SR^{22} groups, -S(=O)R^{23} groups, -$S(=O)_2R^{24}$ groups, -CN, substituted and unsubstituted amidinyl groups, substituted and unsubstituted guanidinyl groups, substituted and unsubstituted primary, secondary, and tertiary alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted alkenyl groups, substituted and unsubstituted alkynyl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylalkyl groups, -C(=O)R^{25} groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{12} is selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups;

R^{13} is selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, -OH, alkoxy groups, aryloxy groups, -NH_2, substituted and unsubstituted heterocyclylalkyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted alkylamino groups, substituted and unsubstituted arylamino groups, substituted and unsubstituted dialkylamino groups, substituted and unsubstituted diarylamino groups,

substituted and unsubstituted (alkyl)(aryl)amino groups, -C(=O)H, -C(=O)-alkyl groups, -C(=O)-aryl groups, -C(=O)O-alkyl groups, -C(=O)O-aryl groups, $-C(=O)NH_2$, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, $-C(=O)N(alkyl)_2$ groups, $-C(=O)N(aryl)_2$ groups, -C(=O)N(alkyl)(aryl) groups, -C(=O)-heterocyclyl groups, -C(=O)-O-heterocyclyl groups, -C(=O)NH(heterocyclyl) groups, $-C(=O)-N(heterocyclyl)_2$ groups, –C(=O)-N(alkyl)(heterocyclyl) groups, -C(=O)-N(aryl)(heterocyclyl) groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{15} and R^{19} may be the same or different and are independently selected from the group consisting of substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted heterocyclylalkyl groups, -C(=O)H, -C(=O)-alkyl groups, -C(=O)-aryl groups, $-C(=O)NH_2$, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, $-C(=O)N(alkyl)_2$ groups, $-C(=O)N(aryl)_2$ groups, –C(=O)N(alkyl)(aryl) groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylaminoalkyl, substituted and unsubstituted diheterocyclylaminoalkyl, substituted and unsubstituted (heterocyclyl)(alkyl)aminoalkyl, substituted and unsubstituted (heterocyclyl)(aryl)aminoalkyl, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{16} and R^{20} may be the same or different and are independently selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups;

R^{17} and R^{21} may be the same or different and are independently selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and

unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, -C(=O)H, -C(=O)-alkyl groups, –C(=O)-aryl groups,-C(=O)NH_2, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, -C(=O)$N(alkyl)_2$ groups, -C(=O)$N(aryl)_2$ groups, -C(=O)N(alkyl)(aryl) groups, -C(=O)O-alkyl groups, -C(=O)O-aryl groups, substituted and unsubstituted heterocyclylalkyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, -C(=O)-heterocyclyl groups, -C(=O)-O-heterocyclyl groups, -C(=O)NH(heterocyclyl) groups, -C(=O)-$N(heterocyclyl)_2$ groups, -C(=O)-N(alkyl)(heterocyclyl) groups, -C(=O)-N(aryl)(heterocyclyl) groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{18}, R^{23}, R^{24}, and R^{25} may be the same or different and are independently selected from the group consisting of H, -NH_2, -NH(alkyl) groups, -NH(aryl) groups, -$N(alkyl)_2$ groups, -$N(aryl)_2$ groups, -N(alkyl)(aryl) groups, -NH(heterocyclyl) groups, -N(heterocyclyl)(alkyl) groups, -N(heterocyclyl)(aryl) groups, -$N(heterocyclyl)_2$ groups, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, -OH, substituted and unsubstituted alkoxy groups, substituted and unsubstituted aryloxy groups, substituted and unsubstituted heterocyclyl groups, -NHOH, -N(alkyl)OH groups, -N(aryl)OH groups, -N(alkyl)O-alkyl groups, -N(aryl)O-alkyl groups, -N(alkyl)O-aryl groups, and -N(aryl)O-aryl groups; and

R^{22} is selected from the group consisting of substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups.

2. The method of claim 1, wherein the levels of circulating adhesion molecules are reduced in the subject after administration.

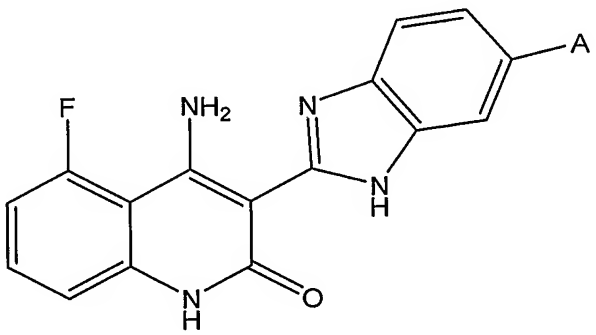
3. The method of claim 1, wherein the amount of at least one of inducible cell adhesion molecule, vascular cell adhesion molecule, or endothelial leukocyte adhesion molecule is reduced in the subject after administration.

4. The method of claim 1, further comprising: measuring the amount of at least one of inducible cell adhesion molecule, vascular cell adhesion molecule, or endothelial leukocyte adhesion molecule in the subject after administration of the compound, the tautomer, the pharmaceutically acceptable salt of the compound, the pharmaceutically acceptable salt of the tautomer, or the mixture thereof.

5. The method of claim 1, wherein the amount of a matrix metalloprotease is reduced in the subject after administration.

6. The method of claim 5, wherein the matrix metalloprotease is matrix metalloprotease-2 or matrix metalloprotease-9.

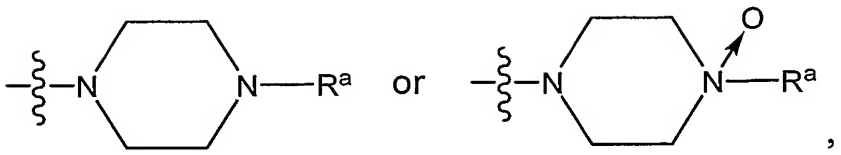
7. The method of claim 1, wherein the compound of Structure I is a compound of Structure II, and Structure II has the following formula:



II

wherein,

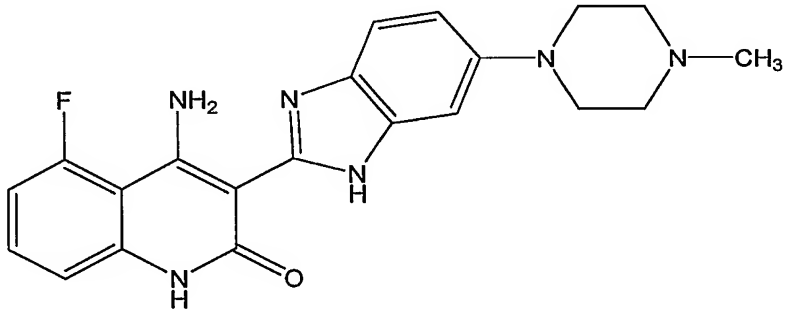
A is a group having one of the following Structures:



wherein,

R^a is selected from H or straight or branched chain alkyl groups having from 1 to 6 carbon atoms.

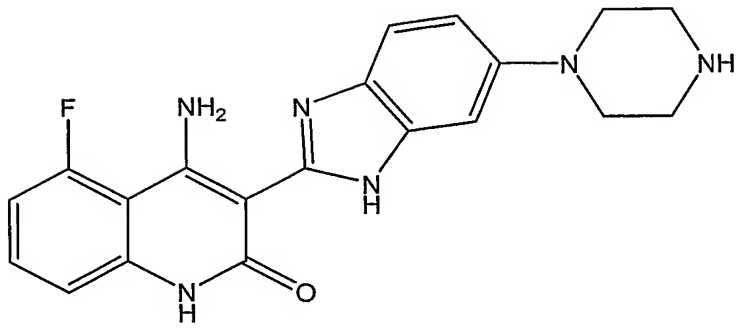
8. The method of claim 7, wherein R^a is a methyl group, and the compound of Structure II has the Structure IIA having the following formula:



IIA .

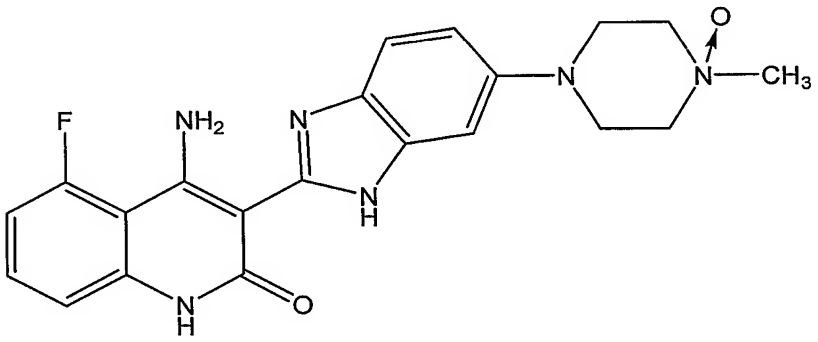
9. The method of claim 8, wherein the pharmaceutically acceptable salt of the compound of Structure IIA, the pharmaceutically acceptable salt of the tautomer, or the mixture thereof is administered to the subject, and the salt is a lactate salt.

10. The method of claim 7, wherein R^a is a hydrogen, and the compound of Structure II has the Structure IIB having the following formula:



IIB

11. The method of claim 7, wherein R^a is a methyl group, and the compound of Structure II has the Structure IIC having the following formula:



IIC

12. The method of claim 1, wherein the pharmaceutically acceptable salt of the compound of Structure I, the pharmaceutically acceptable salt of the tautomer, or the mixture thereof is administered to the subject, and the salt is a lactate salt.

13. The method of claim 1, wherein the subject is a cancer patient.

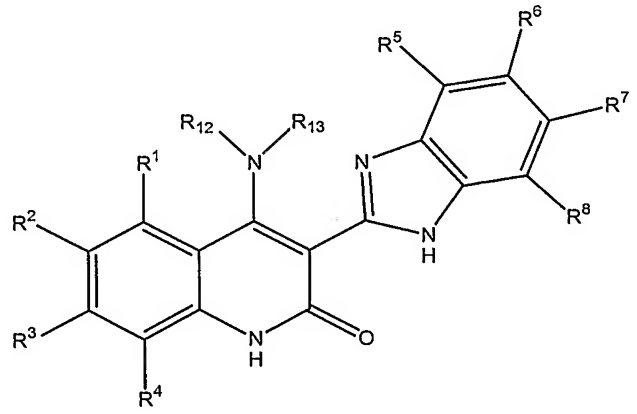
14. The method of claim 1, wherein R^{12} and R^{13} are both H.

15. The method of claim 1, wherein at least one of R^6 or R^7 is a substituted or unsubstituted heterocyclyl group.

16. The method of claim 1, wherein at least one of R^6 or R^7 is a substituted or unsubstituted piperazine group.

17. The method of claim 1, wherein R^1 is F and R^2, R^3, R^4, R^5, and R^8 are each H and one of R^6 or R^7 is H.

18. A method of identifying a subject in need of a compound of Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof, comprising measuring the amount of at least one cell adhesion molecule in the subject before, during, or after administration of the compound of Structure I, the tautomer of the compound, the pharmaceutically acceptable salt of the compound, the pharmaceutically acceptable salt of the tautomer, or the mixture thereof to the subject, wherein the cell adhesion molecule is selected from inducible cell adhesion molecule, vascular cell adhesion molecule, or endothelial leukocyte adhesion molecule, and Structure I has the following formula:



I

wherein,

R^1, R^2, R^3, and R^4 may be the same or different and are independently selected from the group consisting of H, Cl, Br, F, I, -CN, $-NO_2$, -OH, $-OR^{15}$ groups, $-NR^{16}R^{17}$ groups, substituted and unsubstituted amidinyl groups, substituted and unsubstituted guanidinyl groups, substituted and unsubstituted primary, secondary, and tertiary alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted alkenyl groups, substituted and unsubstituted alkynyl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups,

substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylalkyl groups, and $-C(=O)R^{18}$ groups;

R^5, R^6, R^7, and R^8 may be the same or different and are independently selected from the group consisting of H, Cl, Br, F, I, $-NO_2$, -OH, $-OR^{19}$ groups, $-NR^{20}R^{21}$ groups, -SH, $-SR^{22}$ groups, $-S(=O)R^{23}$ groups, $-S(=O)_2R^{24}$ groups, -CN, substituted and unsubstituted amidinyl groups, substituted and unsubstituted guanidinyl groups, substituted and unsubstituted primary, secondary, and tertiary alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted alkenyl groups, substituted and unsubstituted alkynyl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylalkyl groups, $-C(=O)R^{25}$ groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{12} is selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups;

R^{13} is selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, -OH, alkoxy groups, aryloxy groups, $-NH_2$, substituted and unsubstituted heterocyclylalkyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted alkylamino groups, substituted and unsubstituted arylamino groups, substituted and

unsubstituted dialkylamino groups, substituted and unsubstituted diarylamino groups, substituted and unsubstituted (alkyl)(aryl)amino groups, -C(=O)H, -C(=O)-alkyl groups, -C(=O)-aryl groups, -C(=O)O-alkyl groups, -C(=O)O-aryl groups, $-C(=O)NH_2$, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, $-C(=O)N(alkyl)_2$ groups, $-C(=O)N(aryl)_2$ groups, -C(=O)N(alkyl)(aryl) groups, -C(=O)-heterocyclyl groups, -C(=O)-O-heterocyclyl groups, -C(=O)NH(heterocyclyl) groups, $-C(=O)-N(heterocyclyl)_2$ groups, –C(=O)-N(alkyl)(heterocyclyl) groups, -C(=O)-N(aryl)(heterocyclyl) groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{15} and R^{19} may be the same or different and are independently selected from the group consisting of substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted heterocyclylalkyl groups, -C(=O)H, -C(=O)-alkyl groups, -C(=O)-aryl groups, $-C(=O)NH_2$, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, $-C(=O)N(alkyl)_2$ groups, $-C(=O)N(aryl)_2$ groups, –C(=O)N(alkyl)(aryl) groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylaminoalkyl, substituted and unsubstituted diheterocyclylaminoalkyl, substituted and unsubstituted (heterocyclyl)(alkyl)aminoalkyl, substituted and unsubstituted (heterocyclyl)(aryl)aminoalkyl, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

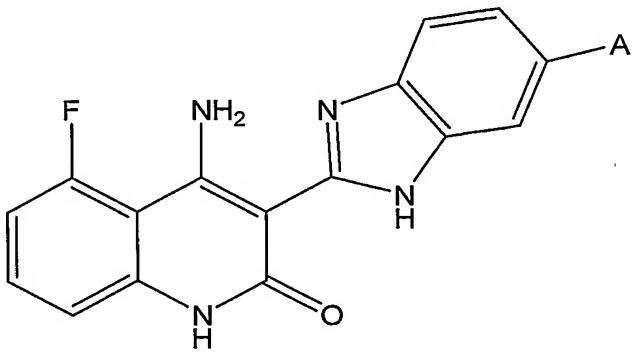
R^{16} and R^{20} may be the same or different and are independently selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups;

R^{17} and R^{21} may be the same or different and are independently selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, -C(=O)H, -C(=O)-alkyl groups, –C(=O)-aryl groups,-C(=O)NH_2, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, -C(=O)N(alkyl)$_2$ groups, -C(=O)N(aryl)$_2$ groups, -C(=O)N(alkyl)(aryl) groups, -C(=O)O-alkyl groups, -C(=O)O-aryl groups, substituted and unsubstituted heterocyclylalkyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, -C(=O)-heterocyclyl groups, -C(=O)-O-heterocyclyl groups, -C(=O)NH(heterocyclyl) groups, -C(=O)-N(heterocyclyl)$_2$ groups, -C(=O)-N(alkyl)(heterocyclyl) groups, -C(=O)-N(aryl)(heterocyclyl) groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{18}, R^{23}, R^{24}, and R^{25} may be the same or different and are independently selected from the group consisting of H, -NH_2, -NH(alkyl) groups, -NH(aryl) groups, -N(alkyl)$_2$ groups, -N(aryl)$_2$ groups, -N(alkyl)(aryl) groups, -NH(heterocyclyl) groups, -N(heterocyclyl)(alkyl) groups, -N(heterocyclyl)(aryl) groups, -N(heterocyclyl)$_2$ groups, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, -OH, substituted and unsubstituted alkoxy groups, substituted and unsubstituted aryloxy groups, substituted and unsubstituted heterocyclyl groups, -NHOH, -N(alkyl)OH groups, -N(aryl)OH groups, -N(alkyl)O-alkyl groups, -N(aryl)O-alkyl groups, -N(alkyl)O-aryl groups, and -N(aryl)O-aryl groups; and

R^{22} is selected from the group consisting of substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups.

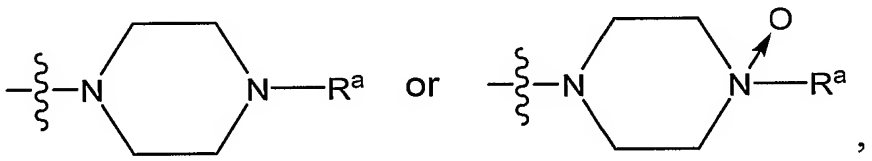
19. The method of claim 18, wherein the compound of Structure I is a compound of Structure II, and Structure II has the following formula:



II

wherein,

A is a group having one of the following Structures:

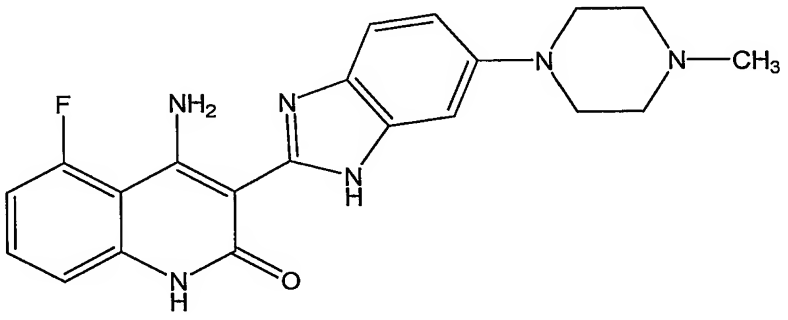


,

wherein,

R^a is selected from H or straight or branched chain alkyl groups having from 1 to 6 carbon atoms.

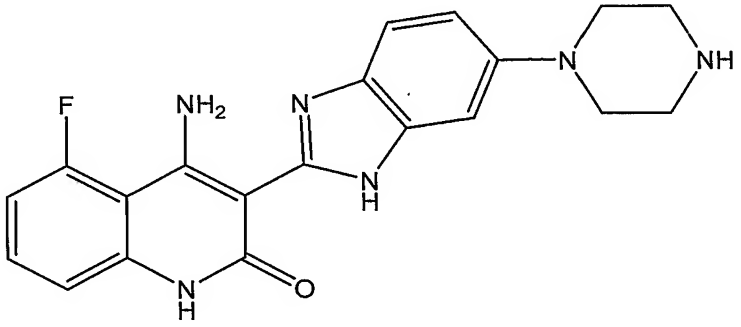
20. The method of claim 19, wherein R^a is a methyl group, and the compound of Structure II has the Structure IIA having the following formula:



IIA

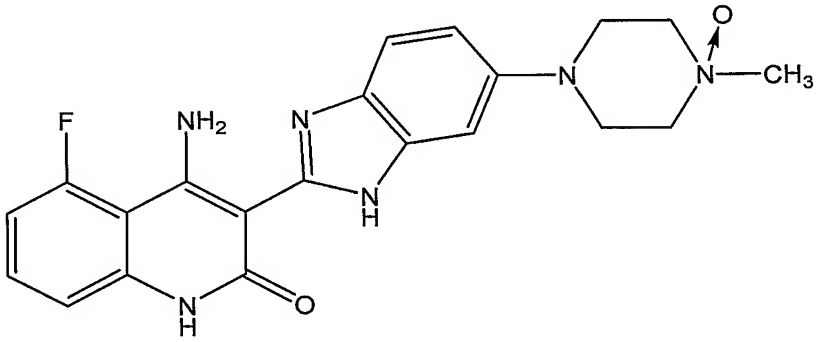
21. The method of claim 20, wherein the pharmaceutically acceptable salt of the compound of Structure IIA, the pharmaceutically acceptable salt of the tautomer, or the mixture thereof is administered to the subject, and the salt is a lactate salt.

22. The method of claim 19, wherein R^a is a hydrogen, and the compound of Structure II has the Structure IIB having the following formula:



IIB

23. The method of claim 19, wherein R^a is a methyl group, and the compound of Structure II has the Structure IIC having the following formula:



IIC

24. The method of claim 18, wherein the pharmaceutically acceptable salt of the compound of Structure I, the pharmaceutically acceptable salt of the tautomer, or the mixture thereof is administered to the subject, and the salt is a lactate salt.

25. The method of claim 18, wherein the patient is a cancer patient.

26. The method of claim 18, wherein R^{12} and R^{13} are both H.

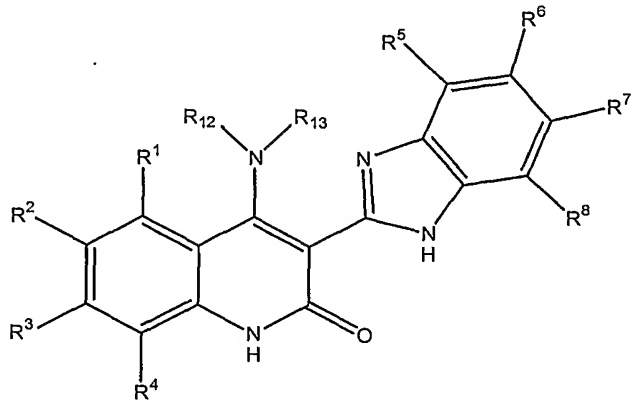
27. The method of claim 18, wherein at least one of R^6 or R^7 is a substituted or unsubstituted heterocyclyl group.

28. The method of claim 18, wherein at least one of R^6 or R^7 is a substituted or unsubstituted piperazine group.

29. The method of claim 18, wherein R^1 is F and R^2, R^3, R^4, R^5, and R^8 are each H and one of R^6 or R^7 is H.

30. The method of claim 18, further comprising withdrawing a sample of blood from the subject and then measuring the amount of the at least one cell adhesion molecule in at least a portion of the sample.

31. A method of monitoring the progression of a disease or treatment in a subject, comprising: measuring the amount of at least one cell adhesion molecule in the subject after administration of a compound of Structure I, a tautomer of the compound, a pharmaceutically acceptable salt of the compound, a pharmaceutically acceptable salt of the tautomer, or a mixture thereof to the subject, wherein the cell adhesion molecule is selected from inducible cell adhesion molecule, vascular cell adhesion molecule, or endothelial leukocyte adhesion molecule, and Structure I has the following formula:



I

wherein,

R^1, R^2, R^3, and R^4 may be the same or different and are independently selected from the group consisting of H, Cl, Br, F, I, -CN, -NO_2, -OH, -OR^{15} groups, -$NR^{16}R^{17}$ groups, substituted and unsubstituted amidinyl groups, substituted and unsubstituted guanidinyl groups, substituted and unsubstituted primary, secondary, and tertiary alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted alkenyl groups, substituted and unsubstituted alkynyl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylalkyl groups, and -C(=O)R^{18} groups;

R^5, R^6, R^7, and R^8 may be the same or different and are independently selected from the group consisting of H, Cl, Br, F, I, -NO_2, -OH, -OR^{19} groups, -$NR^{20}R^{21}$ groups, -SH, -SR^{22} groups, -S(=O)R^{23} groups, -$S(=O)_2R^{24}$ groups, -CN, substituted and unsubstituted amidinyl groups, substituted and unsubstituted guanidinyl groups, substituted and unsubstituted primary, secondary, and tertiary alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted alkenyl groups, substituted and unsubstituted alkynyl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylalkyl groups, -C(=O)R^{25} groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{12} is selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups;

R^{13} is selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, -OH, alkoxy groups, aryloxy groups, $-NH_2$, substituted and unsubstituted heterocyclylalkyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted alkylamino groups, substituted and unsubstituted arylamino groups, substituted and unsubstituted dialkylamino groups, substituted and unsubstituted diarylamino groups, substituted and unsubstituted (alkyl)(aryl)amino groups, -C(=O)H, -C(=O)-alkyl groups, -C(=O)-aryl groups, -C(=O)O-alkyl groups, -C(=O)O-aryl groups, $-C(=O)NH_2$, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, $-C(=O)N(alkyl)_2$ groups, $-C(=O)N(aryl)_2$ groups, -C(=O)N(alkyl)(aryl) groups, -C(=O)-heterocyclyl groups, -C(=O)-O-heterocyclyl groups, -C(=O)NH(heterocyclyl) groups, $-C(=O)-N(heterocyclyl)_2$ groups, –C(=O)-N(alkyl)(heterocyclyl) groups, -C(=O)-N(aryl)(heterocyclyl) groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{15} and R^{19} may be the same or different and are independently selected from the group consisting of substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted heterocyclylalkyl groups, -C(=O)H, -C(=O)-alkyl groups, -C(=O)-aryl groups, $-C(=O)NH_2$, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, $-C(=O)N(alkyl)_2$ groups, $-C(=O)N(aryl)_2$ groups, –C(=O)N(alkyl)(aryl) groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylaminoalkyl, substituted and unsubstituted diheterocyclylaminoalkyl, substituted and unsubstituted

(heterocyclyl)(alkyl)aminoalkyl, substituted and unsubstituted (heterocyclyl)(aryl)aminoalkyl, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{16} and R^{20} may be the same or different and are independently selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups;

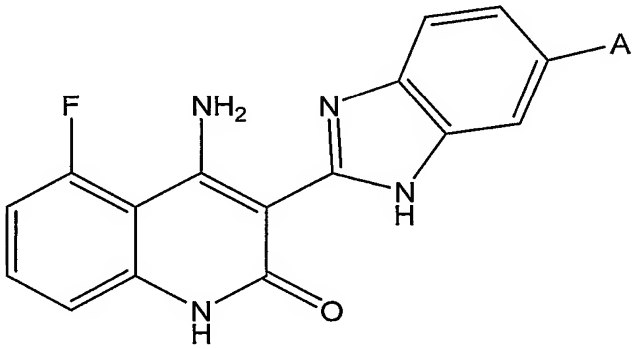
R^{17} and R^{21} may be the same or different and are independently selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, -C(=O)H, -C(=O)-alkyl groups, –C(=O)-aryl groups,-C(=O)NH_2, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, -C(=O)$N(alkyl)_2$ groups, -C(=O)$N(aryl)_2$ groups, -C(=O)N(alkyl)(aryl) groups, -C(=O)O-alkyl groups, -C(=O)O-aryl groups, substituted and unsubstituted heterocyclylalkyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, -C(=O)-heterocyclyl groups, -C(=O)-O-heterocyclyl groups, -C(=O)NH(heterocyclyl) groups, -C(=O)-$N(heterocyclyl)_2$ groups, -C(=O)-N(alkyl)(heterocyclyl) groups, -C(=O)-N(aryl)(heterocyclyl) groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R^{18}, R^{23}, R^{24}, and R^{25} may be the same or different and are independently selected from the group consisting of H, -NH_2, -NH(alkyl) groups, -NH(aryl) groups, -$N(alkyl)_2$ groups, -$N(aryl)_2$ groups, -N(alkyl)(aryl) groups, -NH(heterocyclyl) groups, -N(heterocyclyl)(alkyl) groups, -N(heterocyclyl)(aryl) groups, -$N(heterocyclyl)_2$ groups, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, -OH, substituted and unsubstituted alkoxy groups, substituted and unsubstituted aryloxy groups, substituted and unsubstituted

heterocyclyl groups, -NHOH, -N(alkyl)OH groups, -N(aryl)OH groups, -N(alkyl)O-alkyl groups, -N(aryl)O-alkyl groups, -N(alkyl)O-aryl groups, and -N(aryl)O-aryl groups; and

R^{22} is selected from the group consisting of substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups.

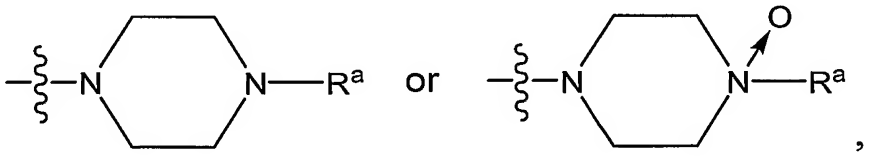
32. The method of claim 31, wherein the compound of Structure I is a compound of Structure II, and Structure II has the following formula:



II

wherein,

A is a group having one of the following Structures:

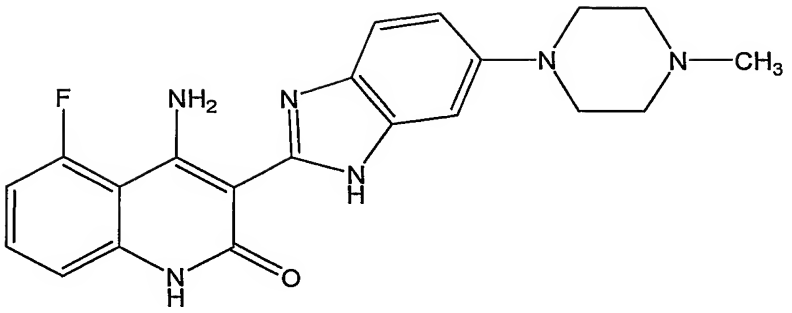


,

wherein,

R^a is selected from H or straight or branched chain alkyl groups having from 1 to 6 carbon atoms.

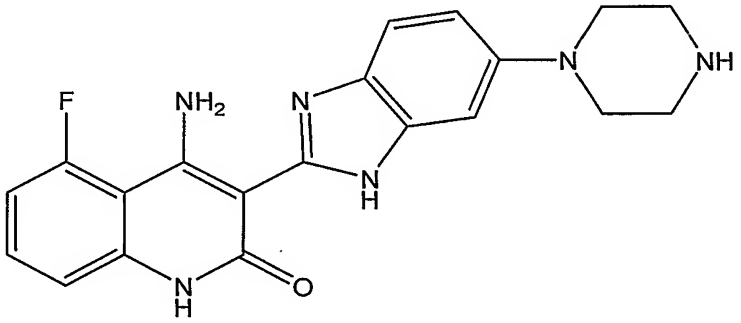
33. The method of claim 32, wherein R^a is a methyl group, and the compound of Structure II has the Structure IIA having the following formula:



IIA

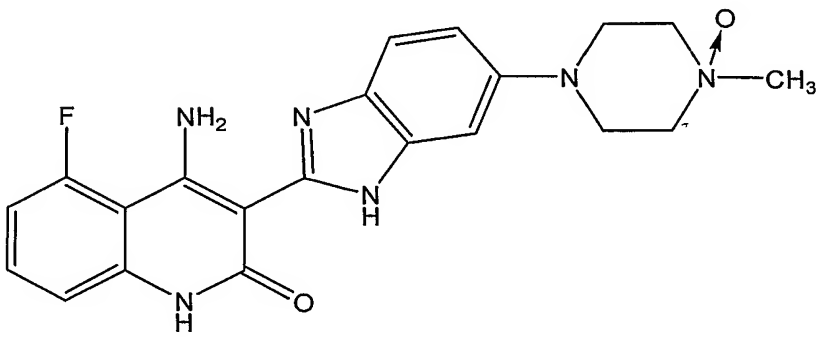
34. The method of claim 33, wherein the pharmaceutically acceptable salt of the compound of Structure IIA, the pharmaceutically acceptable salt of the tautomer, or the mixture thereof is administered to the subject, and the salt is a lactate salt.

35. The method of claim 32, wherein R^a is a hydrogen, and the compound of Structure II has the Structure IIB having the following formula:



IIB

36. The method of claim 32, wherein R^a is a methyl group, and the compound of Structure II has the Structure IIC having the following formula:



IIC

37. The method of claim 31, wherein the patient is a cancer patient.

38. The method of claim 31, wherein R^{12} and R^{13} are both H.

39. The method of claim 31, further comprising withdrawing a sample of blood from the subject and then measuring the amount of the at least one cell adhesion molecule in at least a portion of the sample.

Figure 1

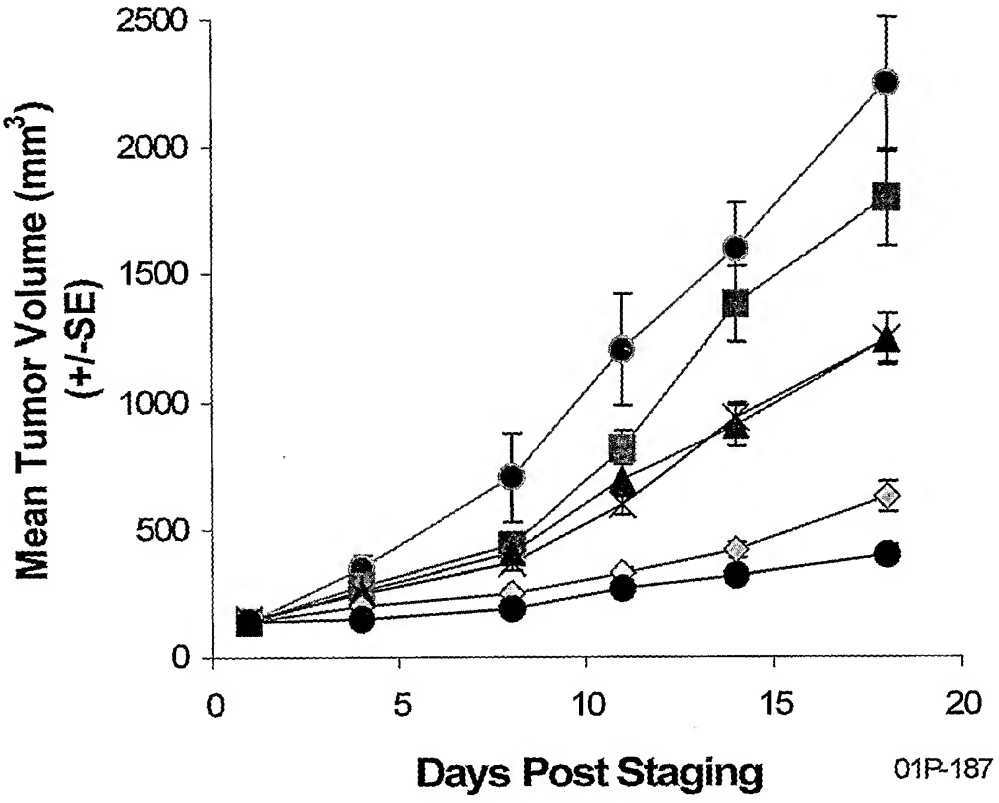

Mean Tumor Volume (mm3)
(+/-SE)
2500
2000
1500
1000
500
0
0
5
10
15
20
Days Post Staging
01P-187

Figure 2A

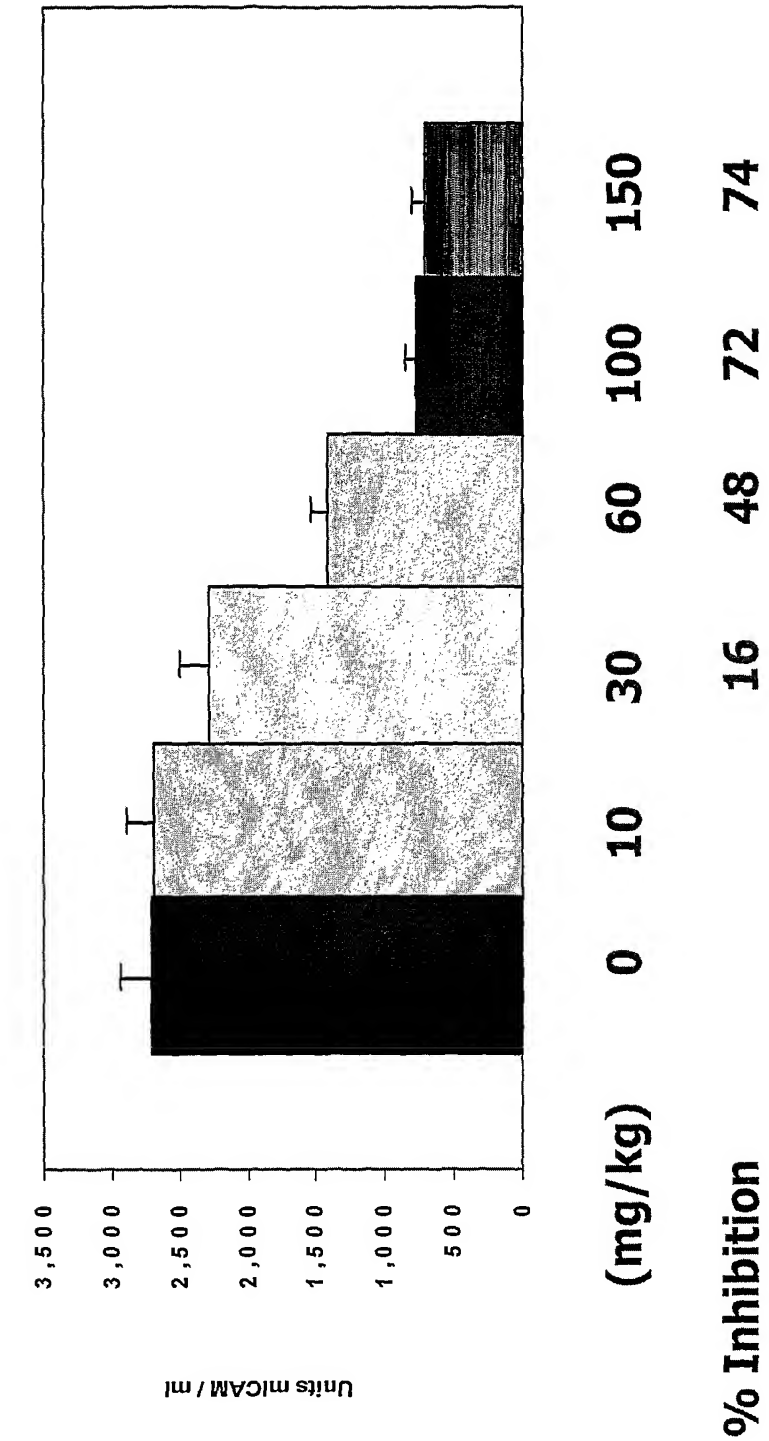

Soluble ICAM
Units mICAM / ml
3,500
3,000
2,500
2,000
1,500
1,000
500
0
(mg/kg) 0 10 30 60 100 150
% Inhibition 16 48 72 74

Figure 2B

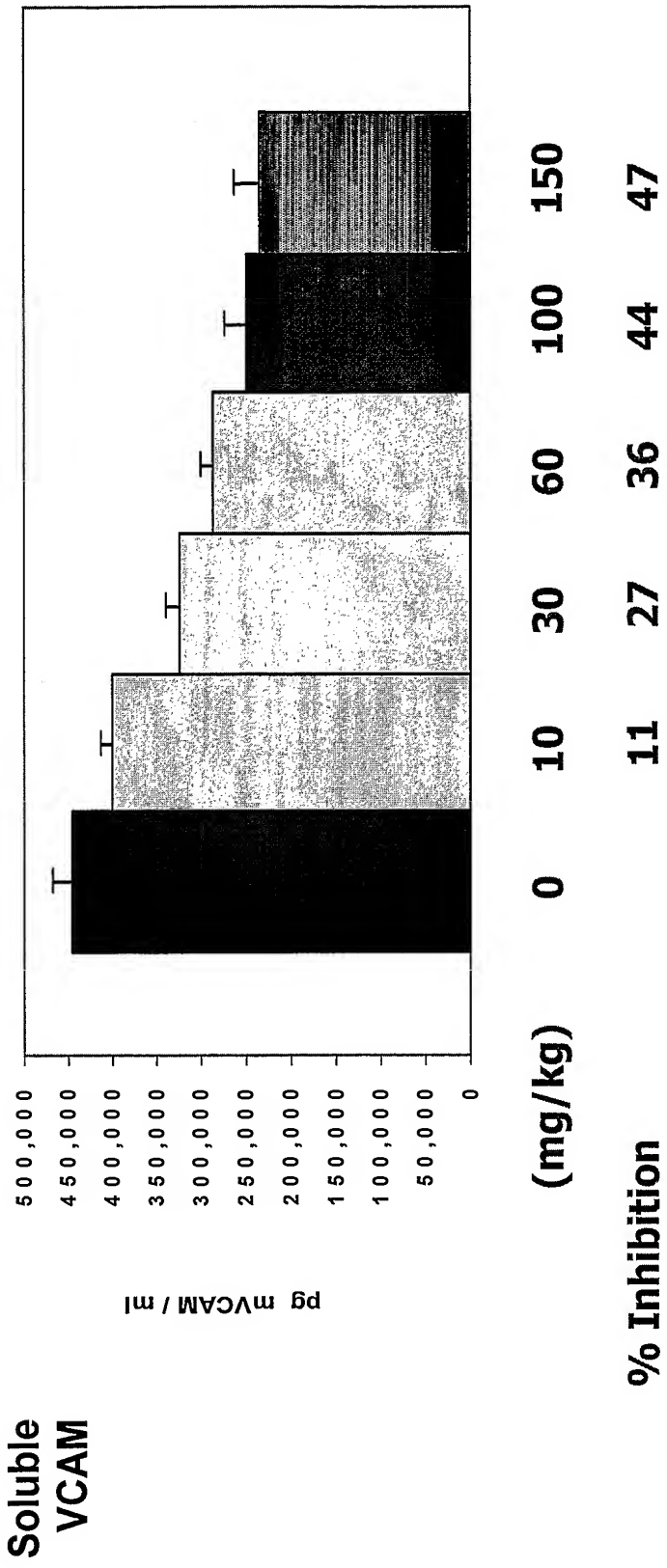

Soluble VCAM
pg mVCAM / ml
500,000
450,000
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
(mg/kg)
0
10
30
60
100
150
% Inhibition
11
27
36
44
47

Figure 3

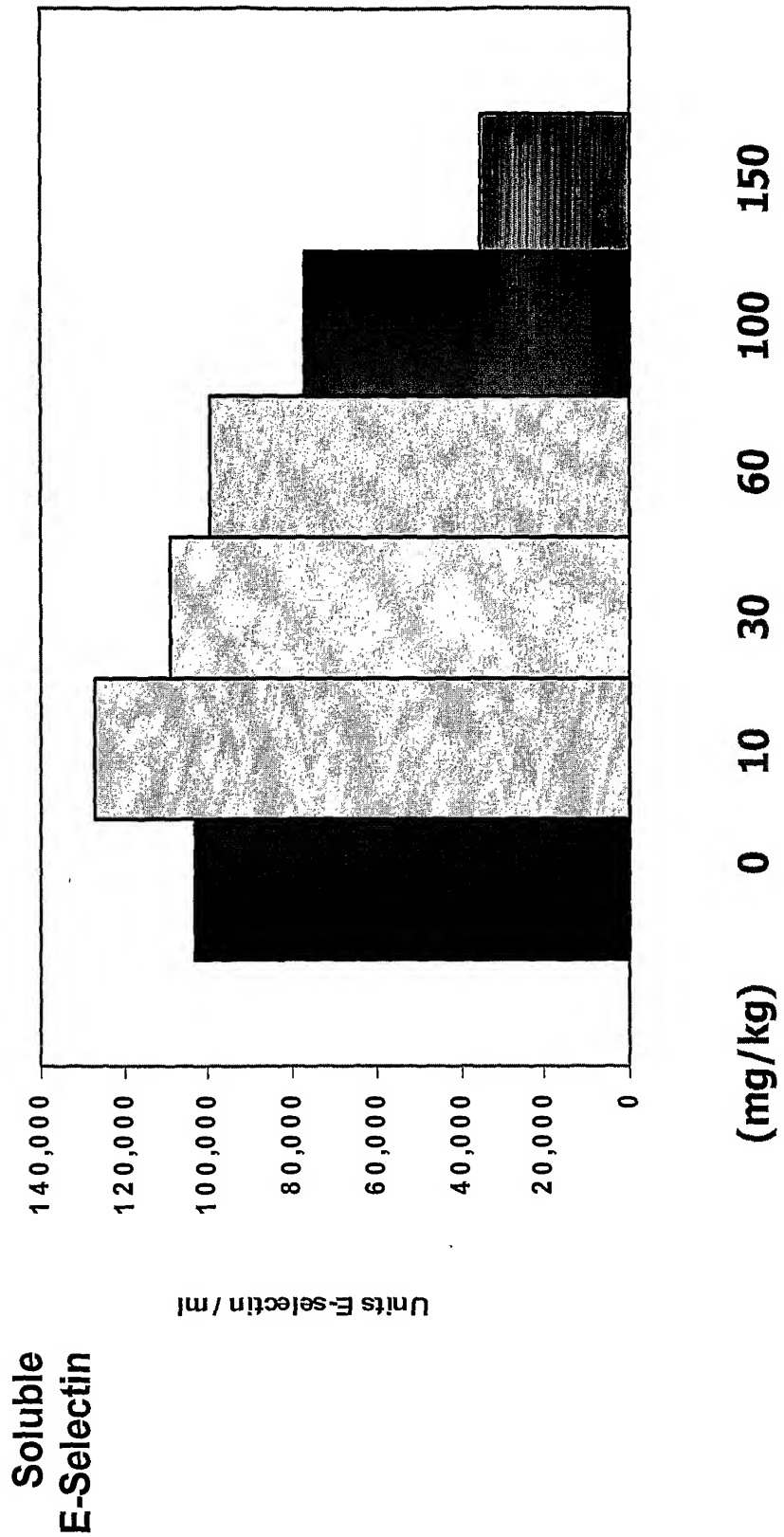

Soluble
E-Selectin
Units E-selectin / ml
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
0
10
30
60
100
150
(mg/kg)

Figure 4A

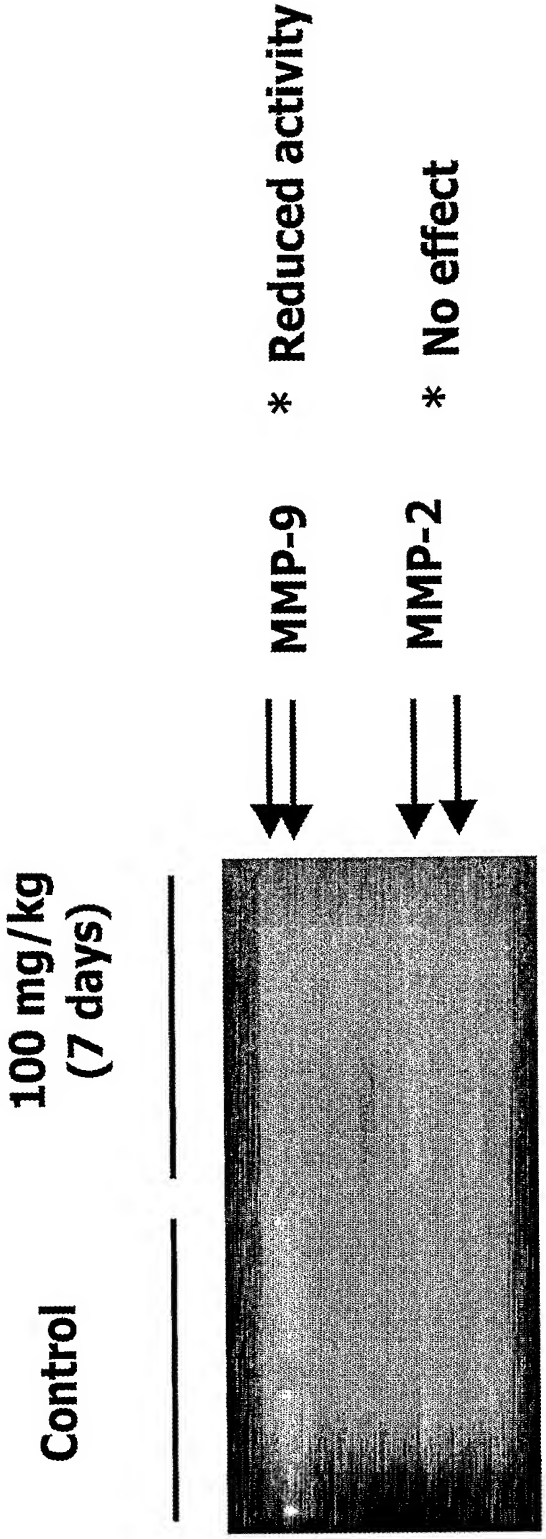

Control
100 mg/kg
(7 days)
MMP-9
MMP-2
* Reduced activity
* No effect

Figure 4B

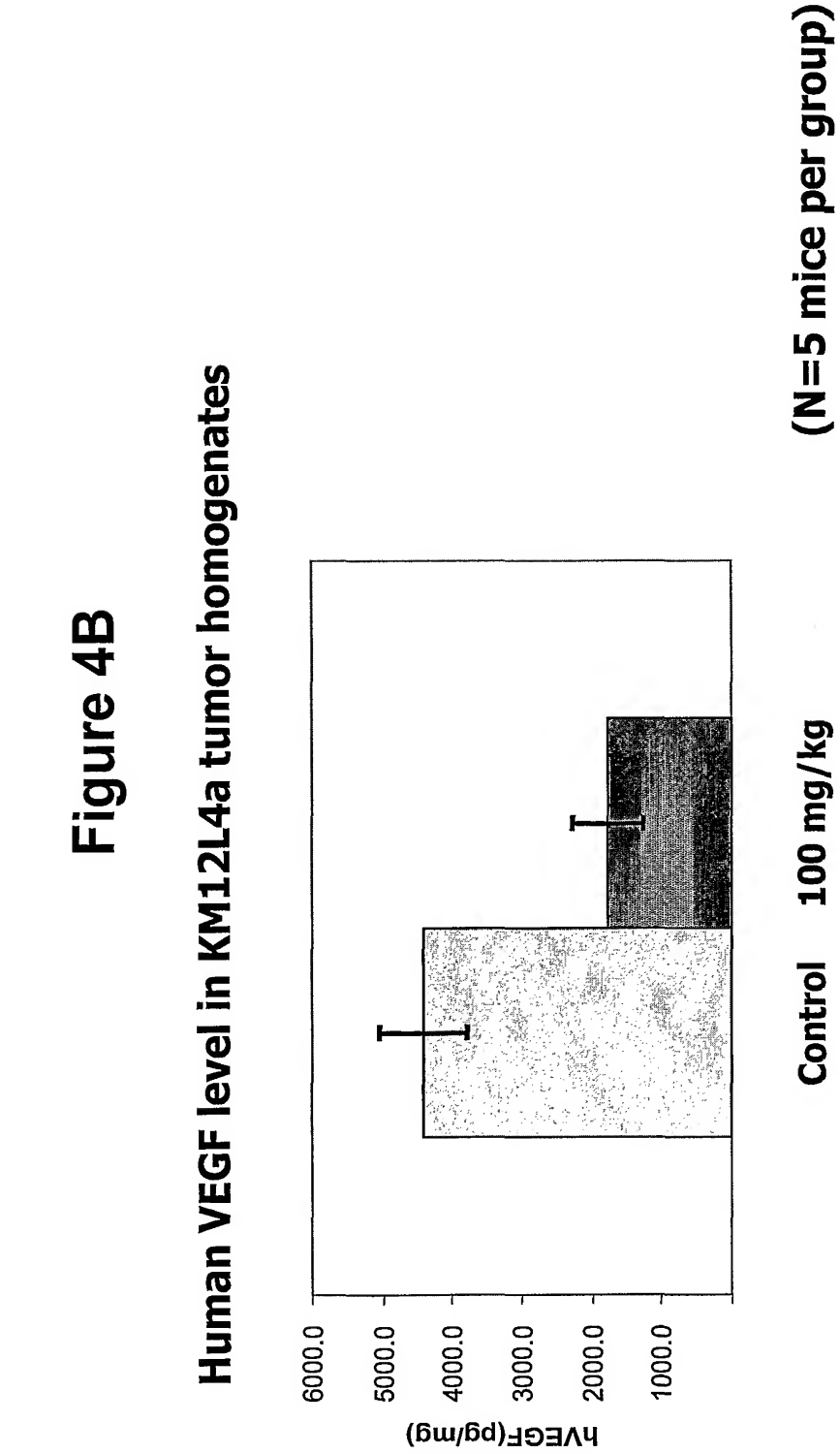

Human VEGF level in KM12L4a tumor homogenates
hVEGF(pg/mg)
6000.0
5000.0
4000.0
3000.0
2000.0
1000.0
Control
100 mg/kg
(N=5 mice per group)

FIGURE 4C

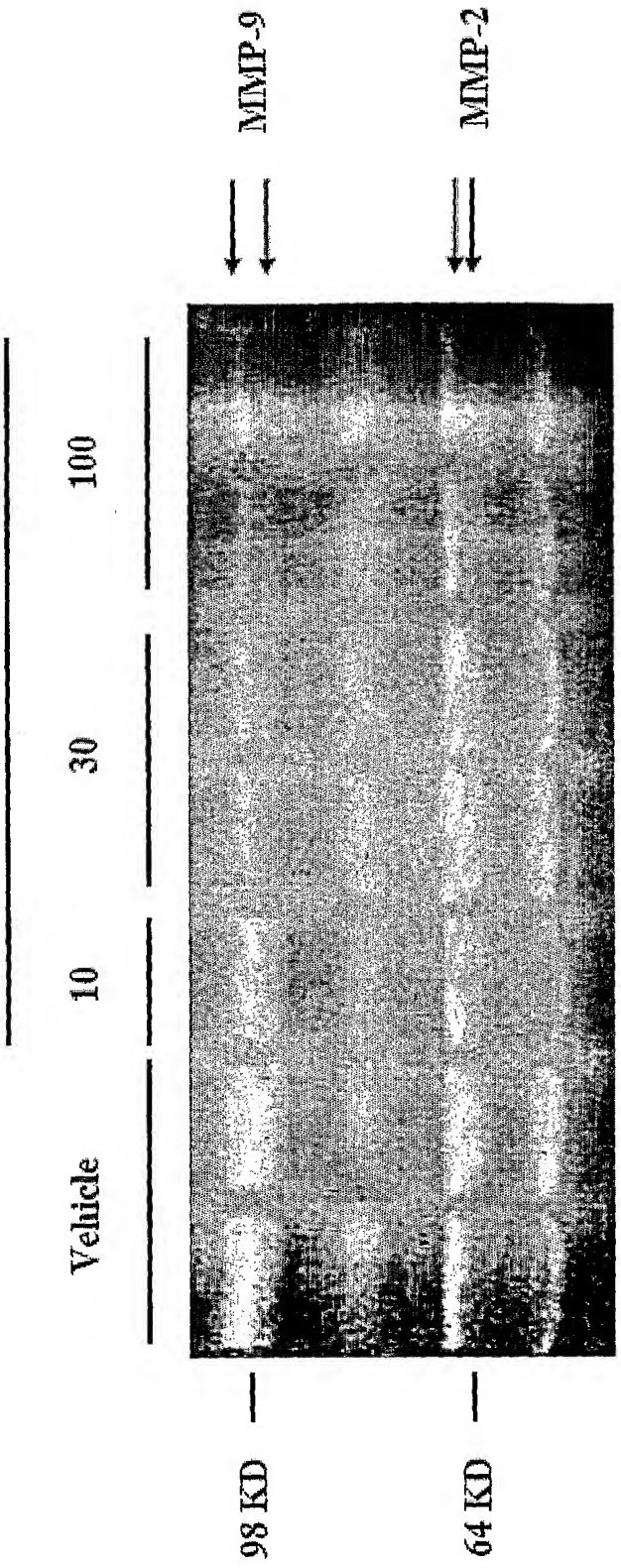

Compound 1 (mg/kg), 7 days on
Vehicle
10
30
100
MMP-9
MMP-2
98 KD
64 KD

FIGURE 5

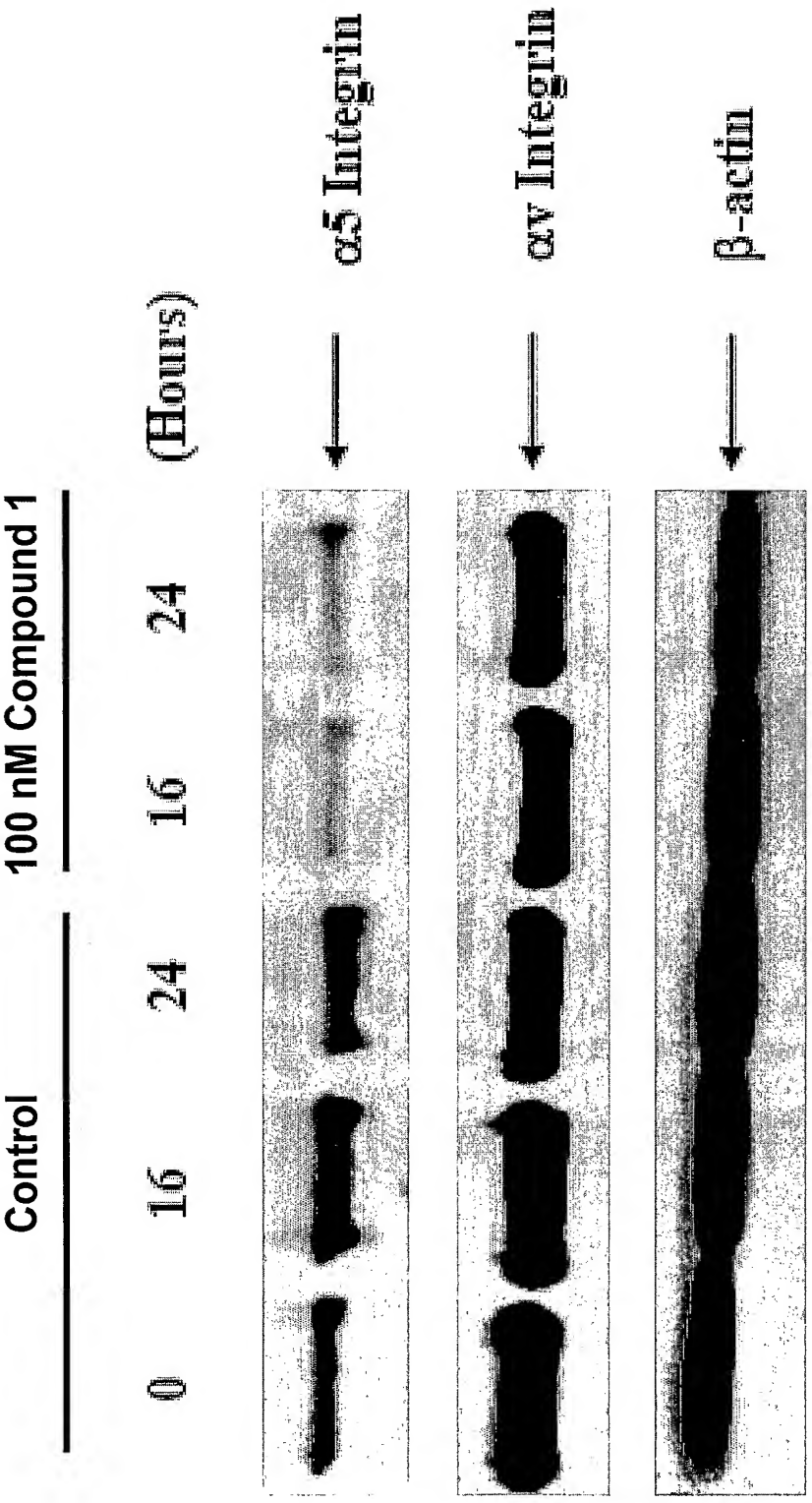

Control
100 nM Compound 1
0
16
24
16
24
(Hours)
α5 Integrin
αv Integrin
β-actin

FIGURE 6